On the external relations of Purepecha : an investigation into classification, contact and patterns of word formation

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1. INTRODUCTION[1]

"Look face it, man, it just isn't possible to fry an egg using a bicycle-powered hairdryer."
(Lister to Cat, 'White Hole')

1.1. Introductory remarks, or trying to solve an unsolvable puzzle

People love puzzles: sudokus, cryptic crosswords and murder mystery stories all satisfy our desire to solve increasingly complex problems. We are able to extrapolate from the snippets of information offered to us, applying a familiar, set formula or method to find the correct number for a given cell or the answer to seven across. It is also often possible to solve murder mystery stories before reaching the final denouement; this requires a certain familiarity with the formula used by a particular author or director, and an ability to spot the clues laid out as the story unfolds. We can all be our own armchair detectives with a bit of practice. Yet there is a common thread running through each type of puzzle: their inherent solvability. While the toughest sudoku or most complex cryptic crossword may be infuriating at its zenith, importantly it will always be solvable; we can always find the correct answer, as long as our method and powers of deduction are up to the task. Indeed the best puzzles leave you with some kind of universal insight.[2]

But not all puzzles possess this solvability feature; some refuse to play by the rules and thus will remain forever unsolvable, even if we apply appropriate and exacting methods to them. Language isolates are an example of such a disobedient puzzle: despite (in the case of some languages at least) years of attempts at classifying them into one or another language family through a more or less strict application of the Comparative Method (see Chapter 2). The key difference here between the type

[1] Parts of this chapter appear, in considerably abbreviated form, in: Bellamy, Kate & Cynthia Groff. In press. Mother-Tongue Instruction and Biliteracy Development in P'urhepecha. In: Ari Sherris & Joy Peyton (eds.), Early Writing in Indigenous Languages, London: Routledge.
[2] I attribute this final statement to the mathematician, puzzle developer and philosopher, Alex Bellos, speaking on the Midweek programme on BBC Radio 4, 16/11/2016.

of puzzles that we can solve and those we cannot is the data upon which their solution is founded. In the case of the sudoku or the cryptic crossword, the clues are available to us, we simply need the appropriate deductive abilities and experience to be able to reach an answer. In the case of language isolates, however, we may lack many pieces of the puzzle, pieces that are vital for reaching our ultimate goal, namely identifying the linguistic relatives of these genealogical outcasts. The evidence required to be able to identify the linguistic relatives of a language isolate is manifold and can be provided by various disciplines: archaeology, history, genetics, anthropology, and, of course, linguistics. Ideally we would draw on diachronic and synchronic sources, notably grammars, dictionaries and written texts of various types, reaching as far back as possible in order to be able to track the evolution of the lexicon and grammar.

If a puzzle is inherently unsolvable then we must concede that its answer is fundamentally unknowable. This is a hugely dissatisfying state of affairs. Yet, rather than dampen our enthusiasm for the problem, its difficulty may spur us on to ever more fantastic and concerted efforts to reach a conclusion. If an answer is reachable in so many cases, then why not this one? The answer is simple and merits repeating: evidence. Without the necessary evidence for a given state of affairs, the puzzle will reach a natural and ultimately untraversable impasse. So even if we know how to solve a puzzle, such as that of the 'deviant' language isolate, the method may never allow us to reach the desired conclusion, namely of genetic relatedness with a larger language grouping, since the evidence is lacking. Or looked at from the opposite angle, the lack of evidence may never allow us to apply the appropriate methods, thereby leaving the solution nothing more than a pipedream.

Purepecha[3] is one of historical linguistics' great puzzles. As we will see in Chapter 2, over 150 years of philological and comparative study has failed to identify a likely genealogical relative for the language. It should come as no surprise to the reader, therefore, that this thesis does not offer a new classification. Yet simply

[3] Many spellings exist for the language, including (but not limited to) P'urhepecha, P'orhepecha, Porhé, and Purépecha. I follow Chamoreau (2017, in press, 2016) in using the orthographically simplest form; the accent is omitted since stress generally falls on the second syllable of the root and therefore does not need to be written. The language was also known as Tarascan or *tarasco* in older literature as well as to refer to the language and people prior to contact with the Spanish. I use this older term, in line with common usage, to refer to the people in the prehispanic period, particularly in relation to their State or Empire.

because the genealogical question is intractable does not mean that other, orthogonal questions should not be investigated, nor that the historical and prehistorical language situations are even clearly defined. On the contrary, no language exists in a vacuum; language communities interact with each other over time and space, potentially leading to various contact phenomena in both language (i.e. lexicon, morphosyntax and semantics) and material culture (e.g. ceramics, textiles, rituals). New evidence for such interaction, or lack thereof, can help to reconstruct (parts of) the prehistory of a language, its development, as well as its (evolving) social setting. This evidence may allow us to speculate on migration patterns and, perhaps even, origins. Moreover, detailed language-internal investigation will offer new insights into this areally unusual language.

In order to contextualise the thesis that follows, in this introductory chapter I introduce the enigmatic Purepecha language (Section 1.2) and the history of its eponymous people (Section 1.3). In Section 1.4, I review previous research on the language, while Section 1.5 constitutes a more in-depth presentation of Purepecha grammar. Section 1.6 discusses both historical and contemporary revitalisation efforts, and is followed by a brief overview of the data sources consulted and the field site where some of those data were collected (Section 1.7). In Section 1.8, I present the research questions that underpin this thesis (and which have already been touched on in this brief introductory analogy) and wrap up with an overview of the rest of the thesis in Section 1.9.

1.2. Introduction to Purepecha

Purepecha is spoken by around 125,000 people (INEGI, 2010), mostly in the northwest of the state of Michoacán in the central highlands of Mexico.[4] Purepecha speakers can be found in four roughly contiguous regions in Michoacán (see Figure 1), with the following population distribution: Zacapu (5.2% of speakers), Lake Pátzcuaro basin (17.8%), *Cañada de los Once Pueblos* 'Valley of the Eleven Villages'

[4] Simons and Fennig (2017) estimate a further 15,000 speakers in other parts of Mexico, predominantly in the capital: Mexico City.

or *Eraxamani*[5] in Purepecha (14.7%), and the *Sierra* or *meseta tarasca* (62.3%; Chamoreau, 2012: 39). In addition at least 15,000 diaspora speakers are living in the USA, specifically in the states of Alabama, California, Illinois, Missouri and North Carolina; here the language status is classified as 6b (Threatened) on the Expanded Graded Intergenerational Disruption Scale of language endangerment (Simons & Fennig, 2017). In these cases, the language is considered to be 'in trouble' since intergenerational transmission is breaking down, even if the current child-bearing generation is still able to use the language.

[5] In line with common conventions, the orthography used in this thesis is largely phonemic, with the following idiosyncrasies (which also form part of the popular alphabet): <x> = [ʃ], <j> = [x], <rh> = [ɽ], <nh> = [ŋ], <kw> = [k^w], <y> = [j], <ï> = [ɨ], <'> = aspiration. Stops following nasals are written as voiceless even though they are voiced in the spoken language.

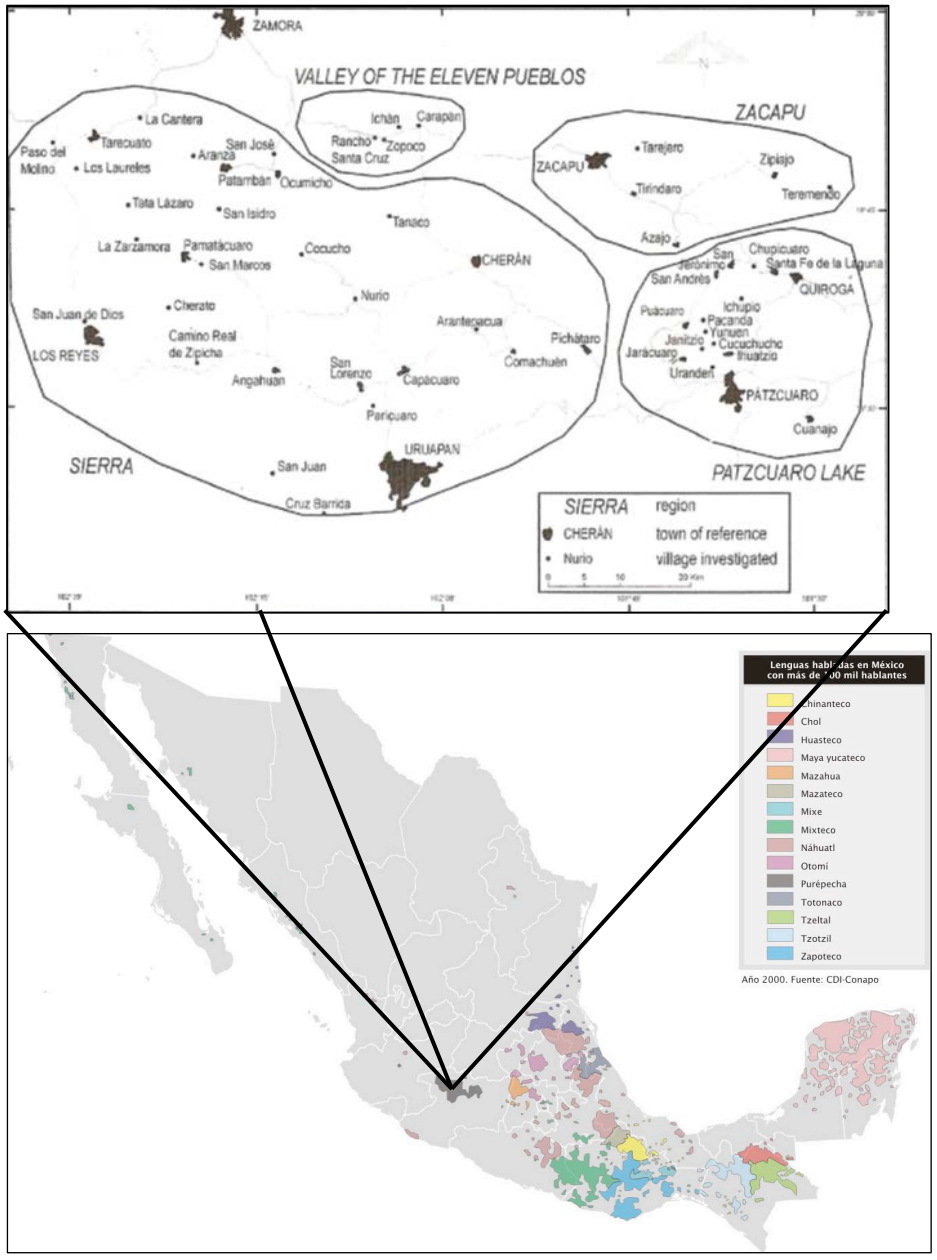

Figure 1: Purepecha speaking regions in Michoacán, Mexico (adapted from Chamoreau, 2012: 39). Note the location of Carapan in the Valley of the Eleven Pueblos.

Prior to the arrival of the Spaniards to modern-day Mexico in 1519, it is estimated that the population of the Tarascan State (covering the modern-day state of Michoacán, plus small parts of what are now Colima, Guanajuato, Guerrero and Jalisco) was fairly high, although estimates range from 280,000 to 750,000, or perhaps even 1.3 million people (Kemper & Adkins, 2015: 21; Pollard, 2015: 93, 1993: 32). Populations diminished quickly following contact; on the basis of the *suma de visitas* 'censuses' conducted by the Spanish, on the basis of figures collected between 1548 and 1579 Gerhard (1993 [1972]) estimates only around 65,000 'Indians' living in predominantly Purepecha-speaking *provincias* in the mid-sixteenth century. However, not all of these individuals would have spoken Purepecha and it is likely that at least some would have been bilingual or multilingual (but see Chapter 4 for a discussion of assumed prehispanic multilingualism).

The contemporary language situation is a predominantly bilingual one, with 90%[6] of speakers also fully competent in Spanish (Chamoreau, 2000: 13), although it is likely now that this figure is even higher, if not at the level of complete societal bilingualism. Spanish was introduced by the *conquistadores* in the early sixteenth century and now, as the national, dominant language of Mexico, it is the language of education, media, religion, administration, business, employment – all prestige domains (Chamoreau, 2007). According to Ethnologue (Simons & Fennig, 2017) the language status of Purepecha is considered to be EGIDS level 5 (developing). This means that "[t]he language is in vigorous use, with literature in a standardized form being used by some though this is not yet widespread or sustainable". That said, only 28% of children aged five to 14 are proficient in the language, indicating a disconnect in transmission from parents to children and an increasing number of monolingual Spanish speakers in formerly Purepecha-dominant areas (Chamoreau, 2000: 14). Rapid language shift to (monolingual) Spanish in a matter of two or three generations is therefore a reality that needs to be confronted.

[6] This figure is in line with the national average for monolingualism in Mexico, which sits at 9.8% (López, 2009: 4). Personal experience and discussions with speakers suggest, however, that this figure is somewhat inflated.

1.3. History of the Purepecha People

In their introduction to the English translation of the *Relación de Michoacán*, the first written history pertaining to the Purepecha people dating to around 1541, the editors claim that "[t]he origin of the Tarascans remains another enigma of ancient Mexico" (Craine & Reindorp, 1970: vii-viii). As a language isolate (see Chapter 2), peripheral member of the Mesoamerican linguistic area (see especially Chapter 4), and somewhat divergent culture in Mesoamerican terms, the origins and social development of the Purepecha continue to interest archaeologists, historians and linguists alike.

In this section I concentrate on the prehistory and early colonial history of peoples inhabiting the geographical area known as the contemporary state of Michoacán de Ocampo, currently home to the majority of Purepecha speakers.[7] It should be noted, however, that this focus is determined on a socio-political basis. Michoacán itself does not constitute a geographic or geomorphic region with naturally circumscribed limits, rather it was created as a historical and political construct in the Late Postclassic period,[8] with the emergence of the Tarascan State (Ugarte, 1962: 13; however, see Castro Gutiérrez (2015) for an opposing position). As such its value as an area of investigation in early prehispanic times may be more limited. Nonetheless, and especially given the observed continuity between archaeological phases (see, e.g., Carot, 2005), I take it as a starting point for the sections that follow.

1.3.1. Early cultures in Michoacán

The earliest occupation of modern-day Michoacán dates back to the Archaic period. Maize pollen from sediment cores dating to 1500 BCE indicates that the region was first inhabited by sedentary or semi-sedentary agriculturalists (Pollard, 2015: 94). In the Early Preclassic, localised agriculture-based villages emerged, whose terrestrial

[7] The name Michoacán means 'place of the masters of the fish' in Nahuatl, from *michhuah* 'possessor of fish, person from Michoacán' and *-cān* 'at some place, time, point' (Karttunen, 1983). Fishing was, and continues to be, an important activity in the Lake Pátzcuaro basin, the geopolitical core of the Tarascan State.

[8] Following Coe & Koontz (2008: 236) for Mesoamerica, the dates of the archaeological periods cited are as follows: Archaic (before 1800 BCE), Early Preclassic (1800-1200 BCE), Middle Preclassic (1200-400 BCE), Late Preclassic (400 BCE-150 CE), Early Classic (150-600 CE), Late Classic (600-900 CE), Early Post-classic (900-1200 CE), Late Post-Classic (1200-1521 CE).

and coastal interaction is evidenced in local pottery styles (e.g. Toby Evans, 2004: 213; Gorenstein, 2000). However, even though diversity characterised the region until the emergence of the Tarascan State in the second millennium CE, cultural continuity is observable from the Middle Preclassic period for central and centre-north Michoacán, locations that were to become key in the formation of the Tarascan State (see Section 1.2.2). Of the three cultures said to have been residing in Michoacán during this period, it is the Chupícuaro of the north and central zones, whose communities were found on islands in marshes or on lake and river shores, that is identified as the beginning of a distinguishable Purepecha cultural tradition (Pollard, 2015: 93; Carot, 2005).[9] The Chupícuaro and subsequent phases are presented in Table 1.

Period	Local phase	Dates (approximate)
Late Postclassic	Tariacuri	1350 - 1525 CE
Middle Postclassic	Late Urichu	1000/1100 - 1350 CE
Early Postclassic	Early Urichu	900 - 1000/1100 CE
Epiclassic	Lupe - La Joya	600/700 - 900 CE
Middle Classic	Jaracuaro	500 - 600/700 CE
Early Classic	Loma Alta 3	350 - 550 CE
Late/Terminal Preclassic	Loma Alta 1 & 2	150 BCE - 350 CE
Middle Preclassic	Chupicuaro	500 - 150 BCE

Table 1: Occupation phases of Central Michoacán (based on Pollard, 2015: 94)[10]

Long-distance interaction within Mesoamerica and further afield can also be traced back to the earliest period (Weigand, 2001). Exchange is documented with the Hohokam culture of the southwest USA in the form of similarities in iconography, ceramic designs and architectural features (e.g. Carot & Hers, 2008; Braniff, 1995;

[9] The other two cultures are Chumbícuaro in the Tepalcatepec Basin in the southwest, and the Balsas-Mezcala culture of the central Balsas in the south, both of which constituted small-scale agrarian societies.
[10] See Carot (2000) for an overview of the occupation phases of centre-north Michoacán, whose phases differ slightly from the Early Classic onwards.

see also Chapter 2 for an overview of possible linguistic relations in the southwest USA).

In the Classic period a major cultural transformation occurred, with ceremonial centres appearing in a number of locations in Michoacán. This change may have been associated with direct contact with the Teotihuacan culture in the Basin of Mexico, as well as with other local cultures. It is possible also that an influx of Teotihuacan peoples led to the introduction of more Mesoamerican traits, such as planned mound-plaza complexes (known in Purepecha as *yakata-echa*) oriented to the cardinal directions and ball-courts (Williams, 2004). Longer-distance exchange is also evidenced in the presence of obsidian tools from north-east Michoacán and central Mexico, and pottery from central Mexico (Pollard, 2015: 95). Under influence from central Mexico, the Zacapu region in particular became more urbanised, with an overall increase in settlements. Populations also grew at defensible locations, a pattern that was to recur later during the emergence of the Tarascan State. The Santiago-Lerma river in the north and the Balsas-Tepelcatepec in the south acted as important routes of exchange, leading some scholars to also postulate long-distance maritime contact with South America from around 650 CE onwards (e.g. Hosler, 1994; Anawalt, 1992; see also Chapter 3).

However, by the Middle-Postclassic period, with the definitive collapse of the Teuchitlán tradition (a series of communities associated with certain burial sites in West Mexico that shared important Mesoamerican features, such as ball courts, but that also possessed unique type of site layout, see Toby Evans (2004: 245-249)), little direct interaction with central Mexico remained. Instead, participation in exchange was limited to regional cultures, who shared cultural traits and beliefs that would become characteristic of the Tarascan State. Specific traditions present during this time included complex metallurgy, ceramic pipes, the occupation of (later Tarascan) sacred sites, large-scale rubble-filled mounds, and petroglyphs later associated with the principal Tarascan deity of fire *Kurikaweri* 'he who emerges making fire' (e.g. Pollard, 1993).[11] I now turn to the Tarascan State.

[11] Also spelled Tirepenie Curicaueri, Curicaveri, Cuiricaveri and Curicaberi in the *Relacion de Michoacán*.

1.3.2. The Tarascan State

The formation of the Tarascan State[12] can be traced to the Middle Postclassic period, during which a number of competing small-state societies emerged in Michoacán.[13] These societies were internally stratified, some had elaborate civic and religious architecture, with local leadership and power legitimised through a complex set of beliefs (Roskamp, 2016). Ethnohistorical sources indicate population movements from the northern region around Zacapu to the Pátzcuaro Basin in the south, although these migrations are not (yet) visible in the archaeological record (Pollard, 2015: 101). One of the mixed sedentary populations that arrived in the Basin at this time was the *Wakusecha* 'eagle warriors'. According to the *Relación de Michoacán*, henceforth RM (Espejel Carbajal (ed.), 2008; de Alcalá, 1956 [1574]), the sacred history of this group, the *Wakusecha* settled amongst other local lineages, including proto-Tarascan speakers and *naguatatos*, Nahuatl speakers, who also acted as interpreters in relations with the neighbouring Aztecs (Gorenstein & Pollard, 1983: 111).[14] The RM tells how the *Wakusecha* were able to understand, albeit with difficulty, the islanders at Lake Pátzcuaro, allowing the two groups to establish relations. This purported mutual comprehension has led Carot & Hers (2008), for example, to postulate a 'leave and return' scenario, whereby the *Wakusecha* were in fact returning to their original homeland, having left after the Loma Alta phases (see Table 1) for lands further north (i.e. outside of the northern bounds of Mesoamerica). This departure may have been triggered by drought, war or starvation, and during this time in the northern areas they interacted with the Toltec Chichimec or Chalchihuites and Hohokam cultures.

The *Wakusecha* emerged as the most dominant lineage in the region now known as Michoacán through warfare and strategic marriage alliances, but it was

[12] I use the term Tarascan State (see also, e.g., Pollard, 1993; Ugarte, 1962) to refer to the political entity also known in the literature as the Tarascan Empire (e.g. Pollard, 2015, 2003; Williams, 2004; Warren, 1985) and the Tarascan Kingdom (e.g. Coe & Koontz, 2008; Warren, 1985).

[13] Recent findings from airborne mapping techniques applied in the Lake Patzcuaro basin suggest that "large urban centres with complex spatial organisation were present centuries prior to the formation of the Purepecha Empire" (Fisher et al., 2017: 129). This claim contradicts existing models of social complexity and the emergence of the Tarascan State but requires further elaboration before the existing narrative can be changed, if that is indeed necessary.

[14] *Naguatato* here is taken directly from Gorenstein & Pollard (1983) although it is likely that their orthography is a little defective. A Spanish term of Nahuatl origin, the official modern spelling is *nahuatlato* or *naguatlato* from *náhuatl* 'that sounds good' and *tlatoa* 'to speak'. See: http://dle.rae.es/?id=QDIAkgD.

under lord Tariacuri (c. 1380-1420 CE), the first *cazonci* 'chief' that this power was fully consolidated (Roskamp, 2016), thereby founding the Tarascan State.[15] Tariacuri brought the chiefdoms of Tzintzuntzan, Ihuatzio and Pátzcuaro under his control, thereby establishing a Triple Alliance, albeit a short-lived one, since it collapsed in the second half of the fifteenth century. Through a rapid process of cultural assimilation and political unification the different groups in the region converged on a Tarascan ethnicity and socio-political system, which included use of the Tarascan language and centralised autocratic rule (Gorenstein & Pollard, 1983). By the mid-1400s the Tarascans were the most formidable enemy of the Aztecs, being the only population to resist them militarily and, as such, the only other polity in the world recognised by the Aztec Gods and Moctezuma himself (Gorenstein & Pollard, 1983: 1). By the mid-fifteenth century, following the collapse of the Triple Alliance, Tzintzuntzan was the single capital of the Tarascan State, remaining the seat of the *cazonci* until 1530 when the Spanish executed the last leader, Tsintsicha Tankaxoan.[16]

Despite the clear regional dominance of the *Wakusecha*, as evidenced in other documents, such as the *relaciones geográficas*, their tradition and identity is not the only one to be recorded in extant documents (Roskamp, 2015). A different vision of the past is presented in the *Lienzo de Jucutacato*, a pictorial account from 1565 regarding the origins of the people of Jicalán (Michoacán), their settlement and first offices. This document states that Nahuatl-speaking Toltec groups with metalworking skills arrived from Veracruz in gulf southeast Mexico, passing through Central Mexico and settling in a number of locations in Michoacán (Roskamp 2005, 1998). This sacred history combines elements from history and oral tradition to support the authors' claims to ownership of mines and natural resources, offering a very different

[15] The term *cazonci* is of disputed etymology: (i) From the Nahuatl *caccoli* 'sandal', either a derisory moniker applied by the Aztecs to reflect the humble sandals worn by the Tarascan ruler when visiting Cortés for the first time in Mexico City, or an indication that the Tarascan ruler was allowed to keep his sandals on when visiting the monarch; (ii) From the Nahuatl *tsontli* '400, numerable' and *-tzin 'lord* (diminutive)', giving 'lord of innumerable houses or towns'; (iii) From the Purepecha *kats-o-n-tsi* 'shaven', interpreted as 'he with the shaven head'. Of these three, Warren (1985: 9-10) favours the third. I agree it is more likely that a group will use a non-derogatory term to auto-denominate, and will likely favour a term from their own language. The chronicler Sahagún also indicates that the Tarascans did indeed shave their heads, and had also been known as the shaven-headed ones (Warren, 1985: 10).

[16] Alternative spellings found in the RM are: Zinzicha, Tangaxoan, Zinçich.

account of the geographical origins of at least some of the people residing in the Tarascan State.

A complex tribute system, including forced labour, military assistance and payment of goods, functioned within the Tarascan State. Sumptuary goods were acquired through long-distance trade with North America, South America (see Chapter 3) and other parts of Mesoamerica, as well as through local acquisition. The Tarascans were also great artisans, known throughout Mesoamerica for their intricate sculpture, ceramics, feather work and metallurgy (see, e.g., Arriaga, 1938: 10-11). Indeed some of the earliest extractive metalworking in Mesoamerica took place in the Tarascan region. Copper was particularly important for the Tarascans in the early part of their rule, having been used for both tools and ornamental pieces. Later techniques utilised alloying processes, although during both metalworking periods emphasis was placed on the visual (i.e. colour) and sonic properties of the metal (Chapter 3; see Hosler, 1994).

In the Tarascan belief system a number of deities were venerated in addition to the main god of fire Kurikaweri 'he who emerges making fire' (Roth-Seneff, 2015: 224), including the mother goddess Kwerawaperi, and Xaratanga, the goddess of Tariaran (a place probably located to the south of Lake Zirahuén). The *cazonci* was the semi-divine, earthly representative of Kurikaweri, thus he was expected to conquer land in name of the deity, please him by burning primarily wood and incense (Roskamp, 2014), and also ensure that the community had sufficient wood to keep fires burning. Smoke also had a specific religious significance since it was the only contact between man on earth and the gods in heaven (see also Section 5.4). Bonfires were lit to signal the advent of war, after which couriers were then sent out to conscript Tarascan men to fight. The setting of these bonfires was an administrative matter and administrators were responsible for overseeing the collection of firewood (see de Alcalá, 1956 [1574]: 106). In line with the importance of fire, the *cazonci* was cremated and not buried upon his death. Yet the Tarascan State was a relatively short-lived socio-political entity, ultimately unable to resist the invading Spaniards in the third century of its existence.

1.3.3. The Colonial Period

On 23rd February 1521 the first Spanish soldier appeared at the frontier fortress of Tajimaroa, on the border between the Tarascan and Aztec States. The large size of the Tarascan State, its proximity to Mexico City, not to mention its bountiful natural and man-made riches, had not gone unnoticed by the marauding Spanish.[17] Following an initial failed attempt to establish a colony in modern-day Michoacán, Hernán Cortes (the first governor of New Spain) sent out Antonio de Caravajal to rapidly survey the region in 1523, determined to distribute the native towns to his followers as *encomiendas* (Warren, 1985: 73). Distribution was successful on this occasion and thus Spanish rule began, revolving around (i) the exploitation of these *encomiendas*, (ii) the introduction of European agriculture, and (iii) the extraction of precious metals from mines or through exerting nobles [to give away their precious goods] (Warren, 1985: 102).

After Cortés left Mexico (overland) for Honduras in October 1524, a period of unrest began. Indigenous rebellions against Spanish *encomenderos* were commonplace, the local leaders naturally not wanting to relinquish the land and power they had earned or acquired over the preceding centuries (Gerhard, 1993 [1972]: 7-8). In particular, the position of the Tarascan *cazonci* Tsintsicha-Tankaxoan was left unclear and vulnerable. Although open to the possibility of dialogue with the recent invaders, the *cazonci* was initially imprisoned in Mexico City from late December 1524 to mid-February 1525, but then freed and allowed to return to Michoacán, probably accompanied by a number of friars. He was re-imprisoned in 1526 as a means of extracting treasure from the Tarascan State. A continued struggle between the Tarascans and the Spanish ended abruptly on 14th February 1530, when the *cazonci* was executed. Some of his descendants continued to hold governing positions during the early years of Colonial rule but their power gradually waned, thereby bringing an end to the Tarascan State.

In the first two decades after the conquest, Michoacán, along with the rest of Mexico, saw a huge depopulation due to disease and forced resettlement. The

[17] Pollard (2003: 78) estimates that in 1522 the Tarascan State covered an area of around 75,000 km^2, almost 20,000 km^2 larger than modern-day Michoacán..

Tarascan population was reduced by half in the first 30 years of Spanish occupation, with many survivors taking refuge deep in the *Sierra* (West, 1948: 12). The Spanish took over formerly Tarascan State-owned mines and metalworking workshops, using local indigenous people and imported African slaves for manpower, but largely retained the sophisticated prehispanic metallurgical techniques. Yet these changes in leadership and socio-political structure, while enormous in themselves, were not the only transformations that took place in New Spain, the Spanish colony and later vice-royalty (*virreinato* in Spanish), into which the Tarascan State had been incorporated (roughly as the state of Michoacán).[18] The introduction of the Christian calendar, organised according to Christian rituals and dates, for example, profoundly changed the religious life of the Purepecha. A Franciscan order was first established in Mexico by 12 friars who arrived from Spain in 1524. Fifteen young Tarascan nobles were sent to Mexico City in June 1525 to study at the newly built Franciscan school. The *cazonci* was baptised in Mexico City in 1525, and shortly afterwards Fray Martín de Jesús (Coruña), one of the 12 founding friars, was sent to Michoacán. From Tzintzuntzan, the lacustrine site of the first church in Michoacán (a simple, rather unsuccessful structure as it happens), missionary work extended to towns further from the lake. The friars started to destroy "native idolatry", including effigies of the ancient feline god and wooden dog offerings. Polygyny, homosexuality and drunkenness were allegedly commonplace amongst the Tarascans, and hard for the friars to uproot. Following the initial turmoil caused by these incoming political and religious figures, relative stability was established in Michoacán under the episcopacy of Father Vasco de Quiroga (1538-1565), still affectionately referred to locally as *Tata Vasco* 'Uncle Vasco', and widely considered to be the true founder of Michoacán (Warren, 1985: xii).

Such was the impact of the imported political, legal and religious constructs that contemporary Purepecha communities are still largely colonial in terms of their social structure and religious practices, not to mention linguistically. However the founding of new village structures with municipal governments with clearly defined

[18] Michoacán was established as a province of New Spain by 1570 CE, although under colonial rule it was slightly larger than it is as one of the contemporary 31 Mexican states. The state capital was, and still is, Morelia (previously known as Valladolid).

territories, known as *pueblos de indios* 'Indian villages' that were required to pay tribute to the Spanish, led to various land disputes. These disputes were compounded by various subsequent land reform acts, such as President Benito Juarez's Reform Laws which began in 1856, and in some cases persist to this day (see Roskamp, 2015, 2001; Foran, 2005; Friedrich, 1970; Mendieta y Nuñez, 1940).[19]

1.4. Previous research on the language

The history of scholarship on Purepecha dates back to the early colonial period. The first grammar and dictionary were published by the Franciscan friar Maturino Gilberti in 1558 and 1559 respectively, followed shortly thereafter by a combined dictionary and grammar (*arte y diccionario*) by another Franciscan, Juan Baptista de Lagunas (2002 [1574]). A now anonymous dictionary was also compiled during the sixteenth century, a mighty tome known as the *diccionario grande* 'big dictionary' seeing as it spans more than 1500 pages, but it was only published much later under the editorship of the lifelong scholar of Purepecha history, J. Benedict Warren (Anonymous, 1991). The seventeenth century was something of a barren period in terms of scholarly work on the language; not until the early eighteenth century was Augustin friar Diego Basalenque's (1886 [1714]) posthumous grammar of the language published and even this is considered to be little more than a summary of the sixteenth century Franciscan work (Chamoreau, 2000: 8). In the nineteenth century, as interest in the language was rekindled, a steadier flow of works began to appear, in the form of Nájera's (1870 [1831]) grammar, Pimentel's (1862) article on Purepecha morphology, Léon's (1886) phonetic description, and de la Grasserie and Léon's (1896) grammar, dictionary and texts.

The modern era of linguistic inquiry into Purepecha began with the missionary Max Lathrop (see Lathrop, 2007 [1973], 1937) and the renowned American linguist Morris Swadesh, who worked on both modern and colonial Purepecha (which he referred to as *tarasco antiguo;* Swadesh, 1969). Swadesh also worked on classifying the language (along with many other languages of the

[19] It is worth noting the shocking statistic that by the start of the Mexican Revolution (1910-1920) 90% of central plateau people, including 67% of the state of Michoacán, were landless (Foran, 2005: 36).

Americas, see Swadesh, 1967, 1956) and teaching literacy through it (see Section 1.6 for a short discussion of the Tarascan Project which he directed). Chicago-based anthropologist and linguist Paul Friedrich took up the scholarly baton in the 1950s and 60s, leading to a number of influential publications in both disciplines (see Friedrich 1986, 1970 for anthropology, and Friedrich 1984, 1972, 1971 for linguistics).

Various grammars or grammatical sketches appeared in the second half of the twentieth century in English, Spanish and Purepecha (Foster, 1969; Gómez Bravo et al., 1992, 1984; Friedrich, 1984; Nansen Diaz, 1985; De Wolf, 1991, 1989, Villavicencio Zarza, 1992; Monzón García, 1997; see also the introductory chapter of Capistrán Garza, 2015). More recently, Claudine Chamoreau has published a more comprehensive grammar (Chamoreau, 2000), as well as multiple articles on various aspects of the language (e.g. Chamoreau 2017, in press, 2016, 2013, 2008, 2004, 2002a, 2002b), not to mention on recently observable contact-induced changes from Spanish (Chamoreau, 2012, 2007). She has also published a pedagogical grammar, in both Spanish (Chamoreau, 2009) and French (Chamoreau, 2003). A number of scholars, almost exclusively in Mexico, continue to expand our understanding of the language through their work on different aspects of both modern Purepecha (e.g. Capistrán Garza, 2015, 2013, 2011, 2006, 2002, 2000; Mendoza, 2016, 2007; Meneses, 2016; Monzón García, 2005, 2004, 2000, 1998, 1994; Nava & Maldonado, 2004; Vázquez Rojas Maldonado, 2013, 2012) and colonial Purepecha (Monzón García 2005, 1996; Villavicencio Zarza, 2006; Nava, 1994). In Europe the only recent publication of note was a PhD dissertation in archaeology on the external relations of the Purepecha culture from the Archaic to the present-day (Albiez-Wieck, 2011), but its linguistic content is minimal.

1.4.1. Other written sources

In addition to the academic works listed in Section 1.4, a number of other important sources offering historical insight into Purepecha language, culture and history are available. Probably the best-known colonial-period source is the mid-sixteenth century history of the *Wakusecha*, the *Relación de Michoacán* (see Section 1.3.2).

Compiled between 1540 and 1541, probably by the Franciscan Friar Jerónimo de Alcalá, it constitutes an indigenous narrative of prehispanic culture and history, as well as of the conquest and its immediate aftermath, from the perspective of Tarascan priests and nobles (Warren, 1985: 328).

One of the most challenging, but also fascinating, genres of indigenous writing is that of the primordial title. Primordial titles are documents from the seventeenth and eighteenth centuries that describe the origins of indigenous towns and their territories (Roskamp, 2015: 113). Their main purpose was to protect communal territories against invasions from neighbouring settlements and agricultural enterprises. Written by local scribes or regional specialists, they were produced primarily for an indigenous audience and were used in legal disputes. The ultimate origin of these documents is local oral tradition, and often the documents present events and personages from different periods as contemporaneous. Many such documents still exist, although the majority stem from central Mexico. For Michoacán the primordial title (or *lienzo)* of Carapan (Rubí & Altamirano, 1989; see also Section 1.7) is probably the most extensive and detailed, but those of Jucutacato (or Jicalán) and Nahuatzen have also been studied in some detail (see, e.g., Roskamp, 2015, 2001, 1998; Acosta, 1998).

Turning to Spanish-authored documents, we saw in Section 1.3.3 that, starting in 1523, Antonio de Caravajal conducted a year-long survey of Michoacán (a process that was to become standard procedure under the Spanish crown), the result of which was the production of censuses, or *relaciones geográficas*. The first relatively complete survey is the *Suma de visitas* (1548-1550), but later location-specific examples, such as those of Zirándaro and Chilchota (both from 1579), are also still in existence (see Acuña, 1987 for the full annotated texts of 18 such *relaciones* from Michoacán). Later the royal cosmographer Juan López de Velasco penned the *Geográfica y descripción universal de la Indias* 'geography and universal description of the Indias'. These documents are of particular interest to the linguist for the documentation of languages names and numbers of speakers, as well as for local settlement names and toponyms. Naturally there may also be references to languages

long since extinct, such as Pantecan and Chumbian on the Pacific coast (see Gerhard, 1993 [1972]).

The accounts or diaries of friars are also of interest, such as the *Relación de Fray Alonso Ponce* and the diary of Capuchin friar Francisco de Ajofrín (1763-1767), which is also illustrated. These documents contain evidence of linguistic diversity in toponyms and hydronyms in the region, such as settlements ending in *-tlan* 'place' or *-tepec* 'hill, mountain', both of Nahuatl origin rather than the Purepecha *-ro* and *-ato* with the same meanings. However it is to Purepecha proper that we turn to in the next section.

1.5. Language structure

Purepecha is characterised by its agglutinating structure, which relies solely on suffixation as a means of word formation. As a language isolate and peripheral member of the Mesoamerican linguistic area (Chamoreau, in press; Smith-Stark, 1994; Campbell, Kaufman & Smith-Stark, 1986), Purepecha possesses various areally non-typical features in all aspects of language structure. Its phonological inventory comprises 22 consonants and six vowels, and has no tone. The minimal syllable contains one vowel and maximally up to four elements (CVCC), but the preferred syllable structure is CV. Stress can fall on the first or second syllable of the root (where it is disyllabic), with a preference for the second. There are two main word classes: nominals (comprising nouns, demonstratives, pronouns, adjectives, adverbs and numerals) and verbs. Nominal morphology is less elaborate, but both synchronic and diachronic derivational suffixes can be identified as a means of forming nouns and other nominal categories (see Chapter 6). Purepecha has seven nominal cases which, in most cases, are marked as suffixes on the noun. A moribund system of numeral classification can also be observed in the language. The Purepecha numeral system is vigesimal but has largely been replaced by the Spanish base ten system. All nominals may be predicativised using the predicativiser *-e/-i,* giving the Purepecha system considerable flexibility and apparent polyvalency.

Purepecha verbs are largely templatic, whereby the 12 slots following the root are filled strictly in one order, with no repetition of suffixes. All the slots are

never filled in one verb form, with the maximum extent reaching 7 or 8. In the TAM domain, only mood is obligatory in a finite verb. Purepecha is well-known for its extensive (up to 50) set of locative space suffixes, which occur directly after the root and contextualise an event or state in terms of corporeal or non-corporeal reference. Constituent order is generally SVO but SOV is also attested in some varieties. Purepecha generally shows nominative-accusative alignment, with a preference for dependent marking. Having introduced the language briefly here, in what follows I will outline the core phonological and morpho-syntactic features of the language.

1.5.1. Phonology

The phoneme inventory of Purepecha comprises 22 consonants and 6 vowels. There is no tone in the language. The distribution of these phonemes in terms of manner and place of articulation can be observed in Table 2 (consonants) and Table 3 (vowels).

	Labial	**Alveolar**	**Post-alveolar**	**Retroflex**	**Palatal**	**Labio-velar**	**Velar**[20]
Nasal	m	n					ŋ
Stop	p	t					k kʷ
Aspirated stop	pʰ	tʰ					kʰ kʰʷ
Fricative		s	ʃ				x
Approximant					j	w	
Rhotic		ɾ		ɽ			
Affricate		ʦ	ʧ				
Aspirated affricate		ʦʰ	ʧʰ				

Table 2: Consonant inventory of Purepecha

In some varieties [ʃ] is realised as a retroflex [ʂ]. The velar nasal [ŋ] is found only in some varieties of Purepecha, and then only in intervocalic position, while the rhotics

[20] Note that two phonemes appear in the velar stop cells, the first is a plan stop, the second a labialized stop of the same quality. They are included in the same cell for reasons of space.

[ɾ] and [ɽ] appear mostly in intervocalic contexts, and in the majority of varieties (Chamoreau, 2002a: 3).[21] However, under pressure from Spanish, the lateral [l] is starting to replace [ɽ] in many contexts, especially in the speech of under 20s whose command of the language is often more passive (see Chamoreau, 2002a: 9). Stops and affricates are voiced when they follow a homorganic nasal phoneme, e.g. *ampe* 'something, that, why' is realised as [ambe]. The aspirated consonants /pʰ tʰ kʰ tsʰ ʧʰ/ can appear word-initially, medially and after nasals (where they retain their voicelessness but lose their aspiration, see Chamoreau, 2003: 47), but in intervocalic contexts the aspiration shifts from after to before the plosive or affricate, as in *ejpu* 'head', where the <j> represents pre-aspiration ['eʰpu].

Word-initial consonant clusters are of two types. The first is stop + stop in the following combinations: /kt/, /tp/, /tk/, t'k/, /t'p/, or affricate + stop, as follows: /tsk/, /tskʷ/, /tst/, /ts'k/, /ts'kʷ/, ts'p/, /ts't/, /chp/, /chk/, ch'k/, ch'p/. Examples of such combinations include *kta* 'house', *tperi* 'fallow land', *t'kupu* 'mosquito', *tstuni* 'blackberry', and *chkari* 'wood'.[22] Dialect and individual reduction to a single stop or affricate is observable, e.g. *pu* < *tpu* 'mould', as is the introduction of an epenthetic vowel, e.g. *tukumpu* < *tkumpu* 'fir-spruce'.[23] The second type of consonant cluster is /s/ or non-affricate stop + /w/, e.g. *swanta* 'gas', *p'wa-* 'sprinkle'.

	Front	**Central**	**Back**
Close	i	ɨ	u
Mid	e		o
Open	a		

Table 3: Vowel inventory of Purepecha

[21] In the variety of Angahuan (southwest Michoacán) the retroflex tap is pronounced as a plain flap before a consonant (C. Monzón, pers. comm.).
[22] Note that this term, and others, are listed with and without aspiration in different sources. This likely reflects dialectal and individual variation.
[23] Willem Adelaar (pers. comm.) notes that this vowel may not be epenthetic, but rather could have been present diachronically and has since been reduced to a consonant cluster due to second syllable stress. This seems a reasonable hypothesis but not one that will be taken up in detail in this section, or thesis.

All the vowels can appear in all word positions except [ɨ], which only occurs in syllable-final contexts after [ʦ], [ʦʰ] and [ʃ]. Final [i] and [ɨ] are generally deleted in normal speech, giving rise to apparent consonant-final words, which are usually not permitted structurally.

Minimally, a syllable can contain one element (a vowel) and maximally up to four elements, including one vowel (Chamoreau, 2000: 42), thereby permitting the following structures: V, VC, CV, CVV, CVC, CCV, VCC, CVCC.[24] Certain restrictions exist regarding where these syllables occur in the word, for example consonant-final syllables cannot appear word-finally (see Table 4). The most common syllable structure, irrespective of position, is CV (Chamoreau, 2000: 42). Note that monosyllables are usually morphemes and, in turn, often also roots (see also Chapter 6).

Syllable structure	**Purepecha example**	**English meaning**	**Word-initial**	**Word-medial**	**Word-final**
V	a-	to eat	Y	Y	N
VC	ax-	tasty	Y	N	N
CV	ka	and	Y	Y	Y
CVV	káa-	to have care for	Y	Y	Y
CVC	tek-	to stumble	Y	Y	N
CCV	tpu[25]	mould	Y	Y	Y
VCC	ints-	to give	Y	N	N
CVCC	xuks-	to sow	Y	N	N

Table 4: Syllable structures in Purepecha and their possible positions within the word

Stress can occur on the first or second syllable the root, being more common on the second syllable in disyllabic roots. This flexibility can also give rise to semantic

[24] The final three structures are not found in all dialects (Cristina Monzón, pers. comm.).
[25] In some varieties, this form is reduced to *pu*.

contrasts, as demonstrated in the following minimal pairs: *káni-* 'much, many' vs *kaní-* 'arched, curved', *wérani* 'to go out' vs *weráni* 'to cry', and *kárani* 'to fly' vs *karáni* 'to write' (see Chamoreau 2003: 46).

1.5.2. Morphology

The genius of Purepecha, to borrow Sapir's (1921) famous phrase, lies in its strongly agglutinative nature, which enables the formation of morphologically complex words entirely through suffixation. The core element of any word is the root, which can be either mono- or disyllabic. To this root can be added a sequence of suffixes, depending on the word class and meanings to be expressed (for a more detailed description and discussion of roots and suffixes, see Chapter 5). Most roots can also be reduplicated, yielding additional meanings of, for example, intensity, repetition, or multiple distribution in time and place (Friedrich, 1984: 66).

1.5.2.1. Nominal morphology

In the nominal domain, which comprises nouns, pronouns, adjectives, adverbs and numerals (Foster, 1969: 40), the number of possible suffixes is lower than in the verbal domain. I will briefly present the main characteristics of each member of the domain in this sub-section.

Two main types of noun can be identified: derived and fused, where the latter generally represents the result of diachronic processes that are no longer productive. Let us begin with fused nouns, which are constructed from a root and suffix that are synchronically inseparable, and whose compositional meaning ranges from the relatively transparent to the seriously opaque (see, e.g. Chamoreau, 2003: 132-133; see also Chapter 6). These forms take no further nominal morphology apart from the appropriate case markers, such as the objective *-ni* or the plural marker *-cha*. Various examples of these fused nouns are presented in (1).

(1)

tsa=ki	‘lizard’
wirhi=pu	‘crown’
ekwa=tsi	‘twenty’
ata=chi	‘shawl’
wi=chu	‘dog’
sïpi=mpi	‘mosquito’
chesï=mpa	‘bark, shell’
e=p’u	‘head’
se=si	‘good, well’
ma=ru	‘some’
chk’u=rhi	‘corn leaf’
atsï=mu ‘mud’	

(Based on Foster, 1969: 87-88)

Different nominalising suffixes can provide semantic alternations, in this case in terms of shape: *xï-mpa* ‘sugar cane’, *xï-kata* ‘rind of sugar cane’. It is also possible to derive multiple nouns from one root, such as *xïkwa* ‘referring to witchcraft’ (where *-kwa* is likely a frozen nominaliser), *xïkwa-mi* ‘witch’, *xïkwa-pu* ‘spider, spiderweb’. The second noun formation strategy is transparently derivational, whereby the root directly takes a nominalising suffix, most frequently *-kwa* (*-ka* in some varieties) as in *pire-kwa* ‘song’ (from the root *pire-* ‘to sing’). The first and second types can form minimal pairs, such as *tarhe-kwa* ‘hoe’, *tarhe-ta* ‘corn, maize’ (Nava, 1994: 301). The suffix *-ri*, the third most common nominalising suffix, generally refers to an agent, as in *pire-ri* ‘singer’. Irrespective of their formation method, nouns are pluralised with the suffix *-echa, -icha or -cha* (depending on the variety), e.g. *wari* ‘woman’ vs. *waṛi-echa* ‘women’.

Historically a semantically richer and larger class numbering almost 20, Purepecha now possesses only three numeral classifiers, *icha-*, *ichu-*, and *ira-* (see Chamoreau, 2013, 1999), all of which are losing vitality. Friedrich (1971: 381-386) defines them as referring to objects that are ‘longish, saliently one-dimensional’, ‘flattish, saliently two-dimensional’, and ‘roundish, saliently three-dimensional’ respectively. When used (they are no longer obligatory), they appear after the numeral

in clauses where a numeral modifies a noun (2a), although the noun may also be omitted (2b). Capistrán Garza Bert (2000), following Friedrich (1984, 1970) and Foster (1969), includes these three terms in a wider, productive set of classificatory roots that are used in locative predicates.

(2a) ixu ja-rha-s-ti t'amu ichu-kwa
DEM be-SF-AOR-3.S.ASS four NUM.CL.flat-NMZR
ichuskuta[26]
tortilla
'Here there are four tortillas.' (Adapted from Chamoreau 2013: 52)

(2b) tsiman-ichuk=k'u
two-NUM.CL.flat=only
'Only two.' (Adapted from Chamoreau 2013: 52)

Both Friedrich (1984: 74) and Chamoreau (2009a: 163) identify seven cases in the Purepecha nominal system, which coincide in all but one instance, see Table 5. I follow Chamoreau's system, although it should be noted that the lack of agreement may stem from the different varieties from which the respective systems were elicited.

[26] Note that the first element in *ichuskuta* 'tortilla' is the 'flat' classifier -ichu.

Case	Chamoreau (2009a)	Friedrich (1984)
Nominative	-ø	-ø
Objective	-ni	-ni
Genitive	-iri	-ri
Instrumental	-mpo	-himbo[27] (some overlap with comitative)
Comitative	-nku	-(h)ingun (varies by dialect)
Locative	-ru	-rhu ('positional')
Residential	-a (also -e, -o)[28]	N/A
Vocative	N/A	Vowel lengthening (tentative)

Table 5: Case markers in Purepecha

The personal pronoun system previously only distinguished between first and second persons, in both the singular and plural, but demonstrative pronouns have been drafted in to function as third person pronouns (see Table 6). There is no differentiation for gender or animacy. Note also the occurrence of the marker of nominal plurality *-(e)cha* in the plural personal pronouns.

Person (singular)	Form	Person (plural)	Form
1	ji	1	jucha (ji+cha)
2	t'u	2	cha, t'ucha
3	ima, inte	3	ts'ïma (ts'ï+ma), imecha (ima+cha)

Table 6: Personal pronoun paradigm in Purepecha

Person marking for both subject and object is also found on the verb, generally as a second-position enclitic (Chamoreau, 2014; see Table 7 for the full paradigm and (2) for an example of its use). Note that the subject forms for 1PL and 3PL are identical, but that the object forms 2PL and 3PL are identical; note also that the 2SG subject

[27] In some varieties this suffix is still a postposition, namely *jimpo*, found frequently in the phrase *p'orhé jimpo* 'in Purepecha' (lit. 'with/using Purepecha).
[28] Cristina Monzón, pers.comm.

form re-appears as the 1SG object form rather than the 2SG object. Additionally, an applicative suffix can be introduced earlier in the verbal template (in the voice slot) to indicate a recipient, beneficiary or possessor (see Section 1.5.2.2).

Person (singular)	**Subject**	**Object**	**Person (plural)**	**Subject**	**Object**
1	-ni	-ri-ni	1	-kxï	-tsï-ni
2	-ri	-ki-ni	2	-ts'ï	-kxï-ni
3	-ø	-ø	3	-kxï	-kxï-ni

Table 7: Subject and object person marking

(2) wintsintikwa ixe-a-x-ti=kxï chiti
yesterday see-3PL.O-AOR-3.S.ASS=3PL 2SG.POSS
amigu-echa-ni
friend-PL-OBJ
'Yesterday we saw your friends/they saw your friends.'
(Adapted from Chamoreau, 2000: 64)

Example (2) also provides an instance of a possessive pronoun: *chiti* 'your'. The full paradigm of possessive pronouns can be observed in Table 8.

Singular	**Form**	**Plural**	**Form**
1	juchi(ti)	1	juchari
2	chi(ti), t'uchi	2	chari
3	iri, interi, imeri	3	tsiri, tsimiri, tsïmeri

Table 8: Possessive pronoun paradigm (see Chamoreau, 2009a: 72-73)

As well as forming part of the noun phrase, as in example (2), possessive pronouns can also function predicatively (3) where, in many dialects, they must be accompanied by what Chamoreau (in press) calls the predicativisor morpheme *-i/-e*. The

predicativisor can also be attached to other parts of speech such as nouns and demonstratives, which allows them to take verbal morphology and thus act as the predicate of a clause (Hernández Domínguez, 2016: 7).

(3)	t'u	ixe-x-ka	inki	imeri-i-x-ka
	2SG	see-AOR-1/2.ASS	DEM	3.POSS-PRED-AOR-SBJV

'You, you see that it was his/hers.' (Adapted from Chamoreau, 2000: 81)

In addition to the independent possessive pronouns, Purepecha also displays personal possessive suffixes that attach to nouns to indicate personal possession of said noun. These possessive suffixes are: *-ncha* 1st person, *-te* 2nd person, *-xkwa* 1st/2nd person, and *-empa* 3rd person, see example (4).

(4)	ni-a-ti	kta-empa-rhu
	go-IRR-3SG	house-3.POSS-LOC

'He will go to his house' (Adapted from Foster, 1969: 80)

Returning to demonstratives, we find a three-way distal contrast based on the stem *i-* in the singular: *i* 'this', *inte* 'this (distant and visible)' and *ima* 'that' (i.e. distant and not visible), and likewise in the plural: *tsï* 'these' (proximal), *tsïmi* 'these' (distant and visible), and *tsïma* 'those' (distant and not visible; see Chamoreau, 2003: 59).

Purepecha, like many other Mesoamerican languages, possesses a base 20 counting system but it has largely been replaced by the Spanish base ten system. Example (5) presents the numerals still in use in the language according to Chamoreau (2000: 85), although others are still known and understood.

(5)	1	ma	10	tempini
	2	tsimani	20	ekwatsi
	3	tanimu		
	4	t'amu		
	5	jumu		

Numerals may behave nominally, as (5a) demonstrates and is to be expected from their classification as substantives, or verbally, as in (5b), once the predicativisor (here *-i*) has been attached to the root.

(5a) tsimani-echa sapichu-i-x-ti=t'u
two-PL small-PRED-AOR-3.ASS=also
'The two [of them] are also small.' (Adapted from Chamoreau, 2000: 85)

(5b) tanimu-i-x-p-ka=kxï
three-PRED-AOR-PST-1/2.ASS=1PL
'We were three.' (Adapted from Chamoreau, 2000: 84)

The numeral *ma* 'one' can also function as an indefinite article, appearing both before (6a) and after the noun it modifies (6b).[29] There is no definite article.

(6a) ja-rha-x-ti ma achati
be-SF-AOR-3.ASS INDF man
'Once upon a time there was a man.' (Adapted from Chamoreau, 2000: 94)

(6b) p'unkwari tsipampiti ma
feather yellow INDF
'A yellow feather.'

The part of speech traditionally termed 'adjective' is not major in Purepecha. Its word class affiliation also remains unclear; whilst most researchers include it in the class of nominals (see de Wolf, 2013: 23; Chamoreau, 2000: 91-93; Foster, 1969: 40-41, 51; Gilberti, 1987 [1558]: 87), Capistrán-Garza (2013) considers adjectives, or rather 'property concepts' in the sense of Dixon (1982), to be verbal. She also notes,

[29] Generally the indefinite article precedes the noun, but in a director-matcher task I conducted to investigate code-switching in mixed Purepecha-Spanish nominal constructions, I elicited many examples of post-nominal indefinite *ma*. It remains unclear at the present time whether this placement represents a task effect or whether there is more flexibility and complexity to the article than has previously been claimed. I intend to take up this question in future research.

however, that the two so-called 'basic adjectives', *sapi-* 'small', and *tarhe-* 'big', are exceptions to this verbal affiliation. She considers these two exceptions to be nominal since they can directly modify nouns without taking further morphology, except for case marking where they agree with the noun they modify, see (7a).

(7a)	ji	u-s-ø-ka=ni	tsuntsu-ni	sapi-ni
	1SG	do-PRF-PRES-1/2.ASS=1.S	pot-OBJ	small-OBJ
	'I made the small pot'		(Adapted from Capistrán-Garza, 2013: 55)	

These 'basic adjectives' can also be predicativised with the morpheme *-i/-e*, see (7b), as we saw for numerals in examples (5a-b). Note that the predicativisor would also be required with the bare adjectival form *sapi* (see Capistrán Garza Bert, 2005: 80); as well as the form derived here with the nominalising or classifying morpheme *-chu* (see Chapter 6 for a more detailed discussion of these nominalising or classifying morphemes).

(7b)	ji	sapi-chu-i-x-ka=ni
	1	small-NMZR-PRED-AOR-1/2.ASS=1S
	'Me, I am small.'	(Adapted from Chamoreau, 2000: 139)

Other adjectives are formed from a root and an additional suffix, either *-pi/-mi/-mpi* or a 'deverbalising suffix' (De Wolf, 2013), namely *-kata*, *-pu*, or *-ri/-ti*.[30] See example (7c), where the root *chara-* takes the more frequent, suffix *-pi*, after which it takes standard verbal inflectional morphology.

[30] Here it is worth noting the similarity in the adjectivisers *-pi* and *-ri*, as noted in De Wolf's (2013) otherwise muddled analysis, and the word-final morphemes in the two 'basic' adjectives as identified by Capistrán-Garza (2013). This similarity in form may be worth further investigation from the perspectives of word formation and language development.

(7c) tiamu charha-pi-s-p-ti
metal red-MID-PRF-PST-3.ASS
'The metal had got red, was red (in the fire)
(Adapted from Capistrán-Garza, 2013: 58)[31]

It should be noted, however, that much disagreement exists as to the precise status of the suffix *-pi*. Capsitrán-Garza (2013), following Maldonado and Nava (2001), favours an inchoative reading for the roots that take formative suffixes such as *-pi* to form property concept words. Nava and Maldonado (2004) refer to this morpheme as a predicative middle (an analysis reflected in the gloss in (7c)), but have previously termed it an intransitiviser as well as a predicative suffix that gives an inchoative reading (Maldonado & Nava, 2001). Chamoreau (2000: 91-92) does not analyse the suffix separately from the whole adjective word in her short section on adjectives, although later refers to it as an "internal suffix that expresses a quality" (Chamoreau, 2000: 318, my translation). This topic clearly remains open for further investigation.

1.5.2.2. Verbal morphology

Verbal morphology in Purepecha is fabulously extensive, enabling the speaker to express (strictly in this order following the stem) locative, directional, causative, voice/valency, desiderative, adverbial, third person plural object, aspect, tense, irrealis, mood, and person and number purely through the (potentially productive) combination of suffixes (see Chamoreau, in press). Table 9 provides a schematic overview of the maximal verbal template, or what Friedrich (1984) rather underwhelmingly refers to as the 'long word'. It is worth noting that all 12 slots are not filled simultaneously, rather most words contain up to seven suffixes at most (Friedrich, 1984: 65). Note also that members of the same category cannot co-occur in the long word (see Section 2.5). Examples of verb forms with multiple derivational and inflectional suffixes can be found in, *inter alia*, (9a-b), (10a), (12).

[31] I find the inchoative analysis somewhat forced and exaggerated, especially given the prevalence of terms with basic stative semantics in the domains of colour, shape, consistency and texture in *-pi*. As such, I would prefer a simpler reading for this example, namely 'the metal was red'.

Slot	Class	Category	Specific morpheme(s)
Root	Stem	Root	700+ individual forms
1		Stem formative	Many forms, e.g. *-ti, -ka*
2	Derivational suffixes	Locative	Up to 50 suffixes[32]
3		Directional	*-pa* (centrifugal) *-pu* (centripetal)
4		Causative	*-ra /-ta /-tara*[33]
5		Voice/valency	*-kuri* (reflexive) *-p'era* (reciprocal) *-na* (passive) *-pe/-pi* (antipassive)[34] *-ku* (3.O applicative) *-chi* (1/2.O applicative)
6		Desiderative	*-keka /-ncha*
7		Adverbial	*-cha* 'early' *-ma* ' quickly' *-ntu* 'violently' *-kʰama* 'suddenly' *-ntʰa* 'repeatedley'
8	Inflectional suffixes	3PL.O	*-a*
9		Aspect	*-x/-s* (aorist) *-xa* (progressive) *-xïn/-sïn* (habitual)[35] *-xam* (continuous)
10		Tense	*-ø* (present) / *-p / -an* (past)
11		Irrealis	*-a* (irrealis) *-irin* (conditional)
12		Mood	*-ka* (1/2 assertive), *-ti* (3 assertive) *-ki /-i /-ø* (interrogative) *-ka* (subjunctive) *-ø* (SG imperative), *-e* (PL imperative) *-k'a* (exclamative)
13	Pronominal enclitics	Person and number	See Table 6

Table 9: Maximal verbal template in Purepecha (following Chamoreau, in press)

[32] Note that in the verbal templates presented by Friedrich (1984) and Monzón (2004) adverbials precede locative space morphemes. I return to these conflicting analyses in Section 2.5.1.
[33] The *-ra* form appears after simple stems (i.e. roots that directly accept inflectional suffixes), *-ta* generally occurs after a locative suffix, while the compound form *-tara* attaches to bipartite stems (Chamoreau, in press).
[34] This suffix is analysed as a middle voice suffix by, for example, Nava and Maldonado (2004).
[35] The aorist and habitual forms vary in pronunciation according to dialect variation. Both forms are found in examples in this thesis.

Verbal stem bases are the largest class of morphemes in Purepecha (Foster, 1965: 228). As indicated in Table 9, there are two kinds of verbal stems: simple (i.e. root-only), comprising only one morpheme, and bipartite, composed of two morphemes. Simple stems can be either monosyllabic or disyallabic, and take inflectional suffixes directly, as demonstrated in (8a) and (8b) respectively. Note that nouns stems can also be simple or bipartite, leading to my analysis of the root as precategorial rather than inherently verbal or nominal (see Chapter 6).

(8a) kw'i-xa-ka=ni
sleep-PROG-1/2.S.ASS=1.S
'I am sleeping.' (Adapted from Chamoreau, 2003: 82)

(8b) ewa-a-a-ka
remove-3PL.O-IRR-1/2.ASS
'I will remove them.' (Adapted from Chamoreau, in press)

Bipartite stems comprise a monosyllabic or disyllabic root and a stem formative suffix, where the root always bears the stress. The stem formative is required in order for the root to be able to take inflectional morphology, as can be observed in (8c) with the monosyllabic root *mi-*, whose semantics are complex but will be translated for the moment as 'to open' (see Section 6.1 for a detailed discussion of this root and its possible derivations), and (8d) with the disyllabic root *kachu-* 'to cut'.

(8c) mi-ti-xïn-ka=ri kara-ni
open-SF-HAB-1/2.ASS=2SG write-NF
'You know how to write.' (Adapted from Chamoreau, in press)

(8d) chkári-ni kachu-ku-pu-xa-ti
wood-OBJ cut-SF-DIR.CENTRIP-PROG-3.S.ASS
'He comes cutting the wood.' (Adapted from Chamoreau, in press)

The closed class of locative suffixes (slot 2; also termed spatial morphemes (Monzón, 2004) or suffixes of locative space (Friedrich, 1971)) provides specific, concrete (i.e. on or in the body) or abstract (i.e. not in or on the body) reference to the location of an event or action. The same suffix can refer to both concrete and abstract locations. See (9a-b), where examples with the morpheme *-ti* 'human face or front area of an object' are presented and highlighted in boldface.

(9a) ji era-**ti**-s-ka atakurhikat-echa-ni
1SG see-**SP.LOC**-AOR-1/2.ASS wound-PL-OBJ
Jwanu-ni
Juan-OBJ
'I saw wounds on Juan's face' (Adapted from Monzón, 2004: 133)

(9b) María era-**ti**-xa-ti xïranta-ni
María see-**SP.LOC**-PROG-3.ASS paper-OBJ
'Maria is looking at the paper/book' (lit. 'at the frontal surface')
(Adapted from Monzón, 2004: 133)

Directional suffixes (slot 3) can also offer specificity to an action, such as *t'ire-pa-ni* 'to eat while going along', where *-pa* marks an action performed along the way (Foster, 1969: 136).

In the TAM domain, only mood is obligatory in a finite verb, as demonstrated in (10a), although note that it is null in the case of the imperative. Aspect co-occurs with tense and mood (10b), while irrealis (also called the future tense in Chamoreau, 2000: 116-117) occurs only with mood (Chamoreau, in press), see (10c).

(10a) piri-ti
sing-3.S.ASS
'She/He sings.' (Adapted from Chamoreau, 2003: 87)

(10b) yontki wanta-na-xïn-an-ti juchari anapu
before speak-PASS-HAB-PST-3.ASS 1PL.POSS language
'Before, our language was spoken.' (Adapted from Chamoreau, 2000: 119)

(10c) ima no jonkwa-a-ti
DEM NEG return-IRR-3.ASS
'He will not come.' (Adapted from Chamoreau, 2000: 117)

1.5.3 Syntax

At the clausal level constituent order in Purepecha is generally SV(O), as in (11).

(11) S V O
María ata-a-ti Rósa-ni
María hit-IRR-3S.ASS Rósa-OBJ
'Maria will hit Rosa.' (Adapted from Capistrán-Garza, 2013: 52)

It is claimed that constituent order has shifted from being verb-final through contact first with neighbouring Nahuatl (Uto-Aztecan) and Otomí (Otomanguean) - both verb-initial languages - and later with Spanish (see Chamoreau, 2007). However, word order remains flexible to an extent, largely due to the presence of case marking, person marking on the verb and personal pronoun enclitics; see (12).[36] Detailed studies on the syntax and constituent order of different Purepecha varieties is also lacking from the contemporary descriptive literature (Chamoreau, in press).

(12) S O V
Jorgi cigarru-ni sïpi-ru-xa-p-ti
Jorge cigarette-OBJ smell-SF-PROG-PST-3S.ASS
'Jorge smelled the cigarette.'

[36] Indeed many speakers, such as those from Cheranastico and Angahuan (in the Sierra), would consider the SOV word order in (12) to be the unmarked order (C. Monzón, p.c.).

Examples (11) and (12) also highlight the nominative-accusative alignment of the language, whereby the subject of a clause is unmarked, whilst the object generally takes the objective marker *-ni*. Multiple objects - direct, indirect or oblique - can be marked with *-ni* (12a), according to hierarchies of semantic properties, grammatical features and pragmatic strategies (see Chamoreau, 2016: 86).

(12a)	celia	arhi-x-ti	inte-ni	wantantskwa-ni
	Celia	tell-AOR-3S.ASS	DEM-OBJ	story-OBJ
	puki-ni			
	Puki-OBJ			
	'Celia told Puki this story.'		(Adapted from Chamoreau, 2016: 86)	

However in instances of voice change with ditransitive verbs (i.e. in reflexive, reciprocal, passive and antipassive constructions) secundative alignment is employed (12b), meaning that the recipient of the ditransitive verb aligns with the object of the transitive verb (see Chamoreau, 2016: 8).

(12b)	tataka-icha	arhi-na-xa-ti=kxï	wantantskwa
	boy-PL	say-PASS-PROG-3S.ASS=3PL	story
	t'aletskwa-icha-iri		
	elf-PL-GEN		
	'The boys are being told the story of the elves.'		
		(Adapted from Chamoreau, in press)	

At the phrasal level, Purepecha displays a preference for dependent marking (see Chamoreau, 2017). For example, the subject and object roles are expressed by pronominal enclitics (see Table 6), and the possessor (i.e. the dependent) is marked with the genitive marker *-eri* see Chamoreau, 2016: 86), see (13).

(13) nanaka-echa-eri jawiri sesi ja-rha-x-ti
girl-PL-GEN hair very be-SF-AOR-3S.ASS
'The girls' hair is beautiful.' (Adapted from Chamoreau, in press)

Despite this preference for dependent marking, Purepecha also displays a number of head-marking characteristics, namely the 3PL.O role being expressed as an independent suffix on the verb (in slot 8, see Table 8), applicative suffixes appearing exclusively on the verb to encode recipient or possessor, and the possible lack of marking of 1SG and 3SG subjects (see Chamoreau, in press). Moreover, the presence of a number of diagnostic characteristics, including locative suffixes, some head-marking features, emergent polypersonalism and the possibility for 'word sentences', as in (14), has led Chamoreau (2017) to classify Purepecha as a polysynthetic language, somewhere on the continuum between 'sentential' and 'non-sentential'.

(14) jupa-narhi-xa-p-ka=ri
wash-SP.LOC.face-PROG-PST-1/2.S.ASS=S.2.SG
'You were washing your face.' (Adapted from Chamoreau, in press)

Coordinate clauses, comprising two functionally equivalent units (e.g. noun phrases, verb phrases, or clauses), are linked with the ubiquitous *ka* 'and', see (15). This coordinator can also behave more freely, linking chain-medial clauses in discourse (Chamoreau, 2016: 101).

(15) [jwanu p'ame-t'a-rha-xa-ti] ka
Juan pain-SF-LOC-PROG-3S.ASS and
[no ni-wa-ti wiri-ni]
NEG go-IRR-3S.ASS run-NF
'Juan has foot pain and will not run.' (Adapted from Monzón, 2004: 288)

Finite subordinate clauses are marked by the double presence of *-ka*, once at the beginning of the subordinate clause, attached to the subordinating conjunction, and

once at the end, attached to the main verb of the subordinate clause, where it is glossed as a subjunctive marker, see (16). The two *-ka* elements are highlighted in bold for clarity.

(16) [**eka** rosita-ri ama-mpa chem-empa
[**when** Rosita-GEN mother-3.POSS house-3.POSS
nia-nts'a-ni ja-p-**ka**] imeri tapichu
return-IT-NF be-AOR.PST-**SBJV**] 3SG.POSS uncle
no sesi ixe-pa-nts'a-s-p-ti
NEG well see-DIR-IT-AOR-PST-3S.ASS
'When Rosita's mother had returned to her house, her uncle did not see well.' (Adapted from Chamoreau, 2016: 90)

In sum, Purepecha is an areally unique language, characterised by its purely suffixing, agglutinative structure and rich derivational possibilities. Long an unwritten language, but of scholarly interest since the early sixteenth century, the future of the language is looking increasingly uncertain under the influence of Spanish through ever more pervasive communication media. In response to this situation, I now turn to language vitality and revitalisation efforts for Purepecha.

1.6. Language Vitality and Revitalisation Efforts

Purepecha has been spoken in Michoacán (and previously also in parts of neighbouring states) since well before the arrival of the Spaniards in 1521, but the language was not formally written until the publication of the first grammar and dictionary by the Franciscan friar Maturino Gilberti (1987 [1558], 1559 [1975]; see Section 1.4). The Franciscans encouraged literacy in Purepecha during the sixteenth century, with the aim of Christianising the native population, but it seems that these early practices in educational syncretism never really took hold (Hamel 2008: 313). Colonialist education policies instead focused primarily on forcibly assimilating indigenous peoples, the Purepecha included, both culturally and linguistically, through the direct imposition of Spanish (Hamel, 2013: 1). A second strategy during

this period comprised slow transitional education and a very small number of maintenance programmes (including the primary schools discussed in the present chapter), but these were very much the exception.

As such, the Tarascan Project represented a long-awaited return to native language medium education for Purepecha speakers. Directed by the renowned linguist Morris Swadesh (then employed by the Mexican Department of Indigenous Affairs), the Tarascan Project fostered literacy and language maintenance by teaching reading and writing in Purepecha, thereby also acting as a bridge for literacy in Spanish. Before launching the project, a combined team of Mexican and US linguists and anthropologists had devised a suitable, streamlined alphabet for Purepecha and set of primers for pedagogical purposes. These materials were prepared on the basis of ethnographic and descriptive linguistic investigations in a number of villages, thus taking a certain amount of dialect variation into account.

Purepecha literacy classes were taught by twenty specially selected and trained native speakers, several of whom were also taught how to use a printing press in Paracho (the town in Michoacán where the project was established) for producing additional materials, including instructional pamphlets regarding issues such as health and sanitation. Posters presenting the alphabet, as well as contrasting segments (see Figure 3), were also displayed in village squares for consultation outside of class. The project ran for just over a year, from 1939-41, and was reported as being immensely successful; following its advanced, linguistic theory-based approach, previously illiterate individuals learned to read and write in 30 to 45 days (Barrera-Vásquez, 1953: 83). The project ended abruptly in 1941 due to a change in administration, which cut the project's already limited funding, not because of a lack of support from its collaborators or director.

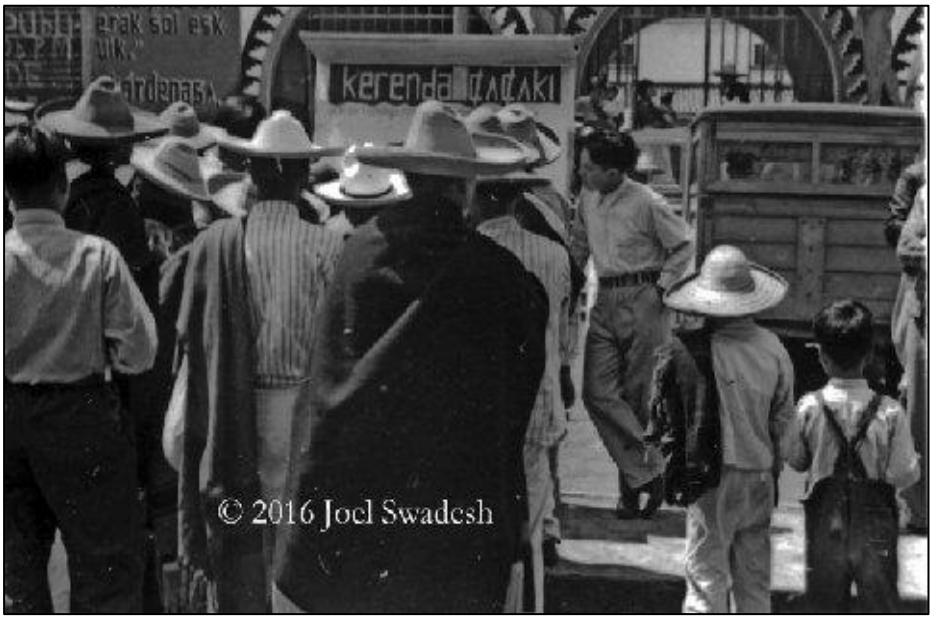

Figure 2: Example of Tarascan Project teaching material: a mural newspaper bearing the title kerenda ʧiʧʌki 'crag flower'. A younger man, probably a teacher, stands by as members of the community read local and national news. Photograph by Frances L. (Swadesh) Quintana, 1939/1940, used courtesy of Joel Swadesh.

Following the discontinuation of the Tarascan Project, literacy in Purepecha advanced little, even with the introduction of so-called bilingual and bicultural education in primary schools across Mexico in the 1970s (Hamel, 2008). This model was replaced in the 1990s by intercultural bilingual education (IBE) with the aim of preventing the development of a dichotomous worldview that the label "bicultural" implied. IBE is supposed to integrate "content matters and competencies from indigenous funds of knowledge, as well as from national programs, [and] should be integrated in a culturally and pedagogically appropriate curriculum" (Hamel, 2013: 1-2). In contrast to earlier colonialist Spanish-centred programmes, IBE should enable children to know and appropriate their own culture in their own language so that they can form

sound competencies, values, and ethnic identity (see Hamel, 2013, 2008; López, 2009 for overviews).

Yet the reality of IBE is not as positive as its aims would suggest. Most Purepecha-speaking children are not schooled in their native language first, instead they continue to work through a system of "Castillanization", where Spanish is the vehicle for literacy and content instruction. Primary schools often provide only two hours a week of instruction in Purepecha, focusing only on language acquisition, namely grammar and spelling and not on content in the native language. That said, Purepecha-medium materials have been developed for teaching the language in these bilingual schools, in the form of grammars/primers and storybooks. However, a remarkable exception to the Spanish-dominated primary education system can be found in two rural schools in San Isidro and Uringuitiro, Michoacán (Bellamy & Groff, in press; Hamel & Francis, 2006). Teachers at these two schools have made a radical return to native language instruction by developing a programme and curriculum that emphasizes Purepecha language and culture, with instruction for all subjects provided through the medium of the Purepecha from Grades 1 to 6. Such efforts are particularly important in an overall climate of decreasing parent to child transmission of the language.

Revitalization efforts are not limited to primary schools, of course, and the initiatives I mention here are not intended to be exhaustive. The *Universidad Indígena Intercultural de Michoacán* (UIIM, see http://uiim.edu.mx/index.php/quienes-somos/mision) offers a number of Bachelor-level programmes aimed primarily at indigenous students, notably the *Licenciatura* in Language and Intercultural Communication, with specialisations in intercultural communication and applied linguistics. This latter specialization is essentially a teacher training programme and therefore includes modules in Purepecha grammar, intercultural education and bilingualism, teaching methods, language acquisition and language planning, amongst others. The *Universidad Michoacana* in Morelia (the state capital) also offers Purepecha language classes, while Facebook communities such as *Hablemos Purepecha* encourage basic vocabulary learning and interest in the language through a more mobile medium. The website Purepecha.com hosts the Purepecha-medium

Radio Xiranhua, as well as information regarding language, culture and local initiatives and events (largely in Spanish), and an online Purepecha-Spanish dictionary. Local radio stations, such as *Radio Juchári Uinápekua* in Santa Fe de la Laguna, are also promoting the language to a wider audience courtesy of the modern possibilities afforded by internet-based transmission.[37]

1.7. Data and field site

The majority of the data used in this thesis is extracted from previously published and unpublished written sources: dictionaries, grammars, wordlists and archive material. My main research collaborator in Carapan, María de la Luz Rivera Rodríguez, contributed lexical data to the language contact study (Chapter 4). As such, it should be noted that the *Cañada* variant of Purepecha is the primary source for my own material, while the material cited from Chamoreau (e.g. 2000, in press) and Foster (1969) reflects Lake Pátzcuaro varieties, whereas Monzón's (e.g. Monzón, 2004) and Friedrich's (e.g. Friedrich, 1984) work is based on two rather different variants from the *Sierra*. The differences between the varieties are not huge, being largely lexical and phonological in nature, but they are a linguistic and textual reality that should be acknowledged.

In Chapter 5, where I offer a typology of smell terms in Purepecha, only a small part of the data presented originates in the written word. Spoken data were elicited from Purepecha-Spanish bilinguals aged 15 to around 50 mainly in the village of San Juan Carapan (known locally simply as Carapan), the first village in the string of settlements known as the *Cañada de los Once Pueblos* 'Valley of the Eleven Villages or *Eraxamani* in Purepecha (see Figure 1).[38] Situated at an altitude of almost 2000m above sea level, Carapan (meaning 'place where registers are kept' in Nahuatl) has a population of around 6400 people (INEGI, 2013), most of whom are Purepecha-speaking. In the municipality of Chilchota, where Carapan is located, 58% of the

[37] Note that the inconsistent use of the accent on the second syllable of the both *Juchári* and *Uinápekua*, as well as the use of <u> for /w/ is retained as this is a proper name.
[38] It can be considered the first village (rather than the last) geographically since the valley begins here, and it is here where the waters rise to form a source that was revered by the prehispanic inhabitants and according to Rubí (1989: 17) continues to be a "sanctuary of wild beauty".

32,561 people aged five and over speak an indigenous language, namely Purepecha (Kemper & Adkins, 2015: 39). This is the highest proportion of indigenous language speakers of any municipality in Michoacán, and the fifth highest in West-Central Mexico (idem.). Carapan is also well-known for having produced the most extensive and detailed set of *lienzos* 'primordial titles' in Michoacán (Roskamp, 2015: 124; see Section 1.4.1).

During the three research visits from 2014-2016, totalling nearly six months, data were also collected from speakers in other *Eraxamani* villages, namely Santo Tomás, Ichán and Zopoco, all of which are also predominantly Purepecha-speaking. The first set of 12 interviews, conducted following the Language of Perception elicitation kit (Majid, 2007), all last between 30 and 45 minutes and were conducted in Purepecha by Maria de la Luz Rivera Rodriguez. The follow-up elicitation sessions, focusing only on the language of olfaction, were conducted with 13 participants and last between 15 and 60 minutes. Both sets of recordings together total around 12.5 hours of spoken data, or just over six hours each.

1.8. Research questions

This thesis does not focus solely on the research question that it was initially intended to resolve, namely: what are the linguistic relatives of Purepecha? Given that the answer to this question has to remain 'none that we can identify from the data available to us' (see Chapter 2), other historical comparative and language internal questions come to the fore. Such a shift in focus evokes Hamp's (1977: 279) statement that "[t]here are three great categories of linguistic study that rely on the comparison of linguistic features and grammars": typology, the Comparative Method and areal linguistics. In the absence of data allowing for an application of the Comparative Method in Purepecha and one or more other purportedly related languages, typology and areal linguistics naturally have to play a more prominent role in this investigation. Moreover, when considering questions related to previous states of the language and possible historical interaction scenarios, it is necessary to have a better understanding of the linguistic processes that have led to language functioning as it currently does, in other words what processes of change (e,g. grammaticalization, semantic shift)

have produced the modern-day language. As such, this thesis seeks to also address the following research questions:

- What can linguistic data, as well as data from other disciplines (notably archaeology and genetics) tell us about prehispanic interaction between Purepecha and other languages of both Mesoamerica and South America?
- What was the nature of these contact relations, at the local (West Mexico), regional (Mesoamerica) and long-distance (South America) levels?
- Given the nature of these contact relations, how does Purepecha fit into the Mesoamerican context?
- How isolated was this isolate, linguistically, culturally and socially?
- How can language-internal processes of change inform our historical understanding of Purepecha and its position areally and genealogically?

As well as offering multiple approaches and methods to dig into the prehistoric linguistic situation, this thesis also offers a glimpse, or rather a snifter, of one element of the unique nature of Purepecha, in the form of its dedicated roots and morphological structure for smell terms (see Chapter 5). While this chapter is, in a sense, a bonus to the main theme of the dissertation, the root analysis I offer there provides an initial framework for the more detailed discussion of word formation in Chapter 6. In the next section I offer an overview of the six chapters that follow.

1.9. Thesis outline

As indicated in Section 1.8, the focus of this thesis shifts from the original research question - finding the linguistic relatives - to questions of language contact and interaction at different temporal and spatial levels, to language-internal issues of word formation and semantic specificity, all the while maintaining a common thread: the Purepecha language and its genealogical and areal standing. It should also be noted that a certain amount of repetition can be found, especially in the introduction to some of the chapters, given that they were written as individual papers and not as part of a monograph.

I open the comparative account in Chapter 2 with a deconstruction of the various proposals for classifying Purepecha and re-analyse them using both a quantitative and a more traditional comparative typological method. I begin this chapter with an overview of the classification proposals that have been put forward in the 150 years of philological interest in the language, ranging from the more conservative and well-founded to the fanciful and, frankly, absurd. I focus on the two classification proposals in particular that have drawn the most scholarly attention, albeit not for their scientific rigour or convincing results. The first of these proposals is the Macro-Quechuan family advanced by Morris Swadesh (1967, 1956), which links Quechua (Quechuan) in the Andes with Purepecha and Zuni, an isolate spoken in the southwest of the US. The second proposal (Greenberg, 1987) places Purepecha in the Chibchan grouping of the Chibchan-Paezan family, as part of the (much) wider Amerind macro-family. On the basis of extended and standardised wordlists I test these two proposals using the Monte Carlo Oswalt Shift test to see whether the "correspondences" identified by Swadesh and Greenberg stand up to statistical scrutiny, that is whether they occur more frequently than would be expected by chance. The short answer is no, they do not; previous cognate candidates were no more likely to have been identified than by chance.

Despite the lack of lexical connections, one cannot deny the structural similarities, particularly in verbal morphology, between Purepecha and Quechua (as well as other Andean languages such as Aymara and Mapuche), which could be held up as evidence for a more ancient relationship. As such, in the second half of this chapter I contrast the suffixing patterns between these two languages, situating them in the context of affix ordering in other strongly suffixing, agglutinative languages in the Americas and further afield. The results of this small-scale typological study indicate that all of these languages adhere to similar patterns of affix ordering, and that the similarities between Purepecha and Quechua represent an example of these typological tendencies. These findings also parallel earlier studies related to the relative ordering of morphemes and the preference for suffixing from the perspectives of processing (e.g. Cutler, Hawkins & Gilligan, 1985), synchronic syntactic principles (Baker, 1985), diachronic change (e.g. Lehmann, 2015), semantic relevance (e.g.

Bybee 1985), or a combination thereof (e.g. Mithun, 2000; Hall, 1988). As such, the evidence from both parts of this chapter converges on the same result: the two main classificatory proposals for Purepecha are baseless and thus should really be consigned to the waste basket of comparative linguistics. Bearing this in mind I call on scholars in other connected disciplines, such as archaeology, to evaluate such classificatory proposals with a more critical eye, and on the dyed-in-the-wool 'lumpers' in comparative linguistics to accept the isolate classification of Purepecha.

In Chapter 2 I used basic vocabulary as a means of testing relatedness proposals to show Purepecha is unique, isolated. However, no language exists in a vacuum; its speakers interact with groups speaking other languages through, *inter alia*, trade, warfare and marriage. In Chapter 3, then, I focus on the supposed transfer of a technology – metallurgy – that has been claimed to connect the Purepecha prehistorically to other metalworking cultures in South America. The motivation for this study lies predominantly in archaeology (Hosler, 1994; Anawalt, 1992) which suggests long-distance contact occurred between the Andean region of South America and West Mexico from 1500 BCE onwards. Moreover, in genetics, Brucato et al. (2015) identify the presence of a small but significant Andean component in certain Mesoamerican populations, whose correlation with proximity to an archaeological site with evidence of metalworking is highly suggestive of contact mediated by metalworking.

Therefore in this chapter I use the lexicon of metallurgy, the most robust line of archaeological evidence for interaction, to investigate the proposed contact relations between West Mexico and the Andean region. On the basis of a specialised wordlist for over 100 languages, I find no clear evidence of contact, other than borrowings at the more local level, especially in the Andes. The reason for this absence of loans may lie in the nature of knowledge transmission which, in both technical and everyday situations, especially in non-industrialised contexts, relies more on the non-verbal than the verbal. The use of existing terms to name metals and new metal objects, as well as shared naming strategies based largely on colours and physical properties, underlines both the cultural continuity inherent in the adoption of a new technology as well as the diversity stemming from multiple local adaptations.

There may also be a case for independent innovation of metallurgy, up to now a rather unpopular position (but see García Zaldúa, 2016; Schulze, 2008).

In Chapter 4, I begin by bringing together the findings of Chapters 2 and 3, using them as a springboard for probing the various questions that their negative results have raised. On the basis of lexical data collected specifically for this project and other sources, I dig deeper into the issue of prehispanic multilingualism in Michoacán, reviewing what is known of cultural and linguistic diversity in this period on the basis of archaeological findings and colonial census reports. I then present a three-way spatial typology of language contact scenarios for Purepecha, focussing in on the long-distance (i.e. South America), medium-distance (i.e. Mesoamerica) and regional (Michoacán and immediate surroundings) contact scenarios. Next I consider the differences in language contact effects over time in, offering examples of lexical and structural borrowing in Purepecha from Spanish in the modern language. Possible socio-political explanations for the patterns observed are then presented.

Having established, using different methods and different types of data, that Purepecha cannot be convincingly (or even unconvincingly) related to another language, and that it exhibits very few demonstrable signs of contact in the prehispanic period, in Chapter 5 I move on to a specific language-internal issue, namely olfactory language. I present a typology of terms for talking about smells in Purepecha. Through a number of elicitation techniques I have gathered data on olfactory language in Purepecha that indicates three ways of talking about how something smells. Comprising 15 terms, the first is the "basic" type (see Berlin & Kay, 1969), whereby a dedicated 'smell root' is duplicated and then extended with the "spatial couplet" morphology (Friedrich, 1971) of two locative space suffixes *-jk'u* 'manual' and *-nti* 'ear, shoulder'. This combination of root and suffixes then combines with inflectional suffixes of TAM, person and number to provide a range of odour meaning whose referents are not related in terms of either form or function to the smell term. Of these basic terms, all but one refer to negative odours. The second type of smell term can be labelled "descriptive"; these terms comprise a root with a transparent meaning such as *te-* 'sweet' and the spatial couplet morphology of the basic terms, to indicate that something has been smelled rather than apprehended in

another manner (e.g. tasted). The third type is source-based, namely a generic verb meaning 'to smell' is combined with the source of the smell (e.g. fire, wood), usually in the objective case. Nonetheless, the observed propensity for negative hedonic smell terms in Purepecha supports the notion that foul odours are more consciously salient than pleasant ones (Lee, 2010: 115). As well as offering this preliminary typology of smell terms, I also discuss the role of smell from a historical perspective, drawing on references to odours of smoke and incense, and their role in Tarascan religious life.

Building on the proposal put forward in Chapter 5 that smell roots would be better conceived of as more abstract concepts in terms such as √PERCEIVED FOULNESS, in Chapter 6 I investigate the relative roles and semantic contributions in word formation processes of the two main morphological units in Purepecha: roots and suffixes. Roots can be derived to form nouns, verbs and other minor word classes, but their independent meaning ranges from highly transparent to seriously opaque. I investigate the role of suffixes in the 650 synchronically fused nouns (see Section 1.5.2.1) drawn from Friedrich's (unpublished) Purepecha-English dictionary as a means of identifying the relative semantic contribution of both roots and suffixes in the language. I discuss the possible classificatory role of the 56 nominalising suffixes identified, focusing on the semantics of a sub-set in order to demonstrate their variability in sematic transparency as well as their possible polyvalence. Through a comparative presentation of nominal classifiers and fused classifier prefixes in four Otomanguean languages, I offer a tentative diachronic pathway for the grammaticalisation of these suffixes in Purepecha. Nonetheless I underline that the lexical origin of most of these 'nominalising' suffixes remains unclear, leaving the way open for a great deal more research into diachronic processes of word formation and the construction of meaning in Purepecha. In addition, I expand on the possibly controversial idea that Purepecha roots could be precategorial, through a critical analysis of existing verb and root accounts for the language. To this end I suggest that they could be conceptualised in terms such as the aforementioned PERCEIVED FOULNESS or RELATED TO BURNING, depending on their semantic transparency, and rather than as simple translations such as 'to stink' or 'to burn' respectively.

The thesis concludes in Chapter 7 with a discussion, including a reflection on the methods used in this thesis and how to deal with their sometimes conflicting findings. It also serves as a call for more language internal work on Purepecha, and other isolates, in order to be able to carry out more accurate and detailed comparative work, if indeed such work is necessary and worthwhile. It also offers a number of possible routes for future research.