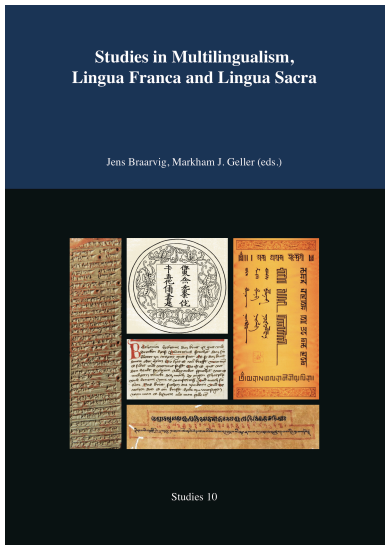


Max Planck Research Library for the History and Development of Knowledge

Studies 10

Lars Kirkhusmo Pharo:

Multilingualism and Lingua Francae of Indigenous Civilizations of America



In: Jens Braarvig and Markham J. Geller: *Studies in Multilingualism, Lingua Franca and Lingua Sacra*

Online version at <http://mprl-series.mpg.de/studies/10/>

ISBN 978-3-945561-13-3

First published 2018 by Edition Open Access, Max Planck Institute for the History of Science under Creative Commons by-nc-sa 3.0 Germany Licence.

<http://creativecommons.org/licenses/by-nc-sa/3.0/de/>

Printed and distributed by:

PRO BUSINESS digital printing Deutschland GmbH, Berlin

<http://www.book-on-demand.de/shop/15501>

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data are available in the Internet at <http://dnb.d-nb.de>

Chapter 18

Multilingualism and Lingua Francae of Indigenous Civilizations of America

Lars Kirkhusmo Pharo

18.1 Multilingualism and Lingua Franca

La Malinche aka Doña Marina (1500?–1551? CE)—born under the name Malinali (from the reverential Malintzin later changed into Malinches¹—epitomizes the multilingualism and lingua franca of pre-European and early colonial America. Moreover, her epithet—Tenepal, “thanks to the one who has a mouth” or “through the one who speaks”—symbolically intimates her political-linguistic impact on American history.²

A Nahuatl born in the Coatzacoalco region in Veracruz, Mexico, La Malinche became the trilingual translator of the Spanish conquistador Hernán Cortés. Initially, she was sold or given to Maya slave traders from Xicalango where she learned the Maya language Chontal [Acalan]. Subsequently in 1519 La Malinche was given as a slave from Chontal Maya of Potonchán in Tabasco to Hernán Cortés where she was introduced to the Spanish language. Cortés had found a Spanish priest, Gerónimo de Aguilar, who had been in captivity among the Maya in Yucatán after a shipwreck. He had learned some of the Maya language, but he did not speak Nahuatl, which was the language of the Aztec empire. Cortés used La Malinche for translating between Nahuatl and Chontal Maya. Aguilar could interpret from Maya into Spanish, until La Malinche learned Spanish and accordingly become the only translator.³ It is evocative that Indigenous peoples compounded the title of “Malintzin” for both La Malinche and Cortés, because he literally spoke through her. In *Historia Verdadera de la Conquista de la Nueva España* (The True Story of the Conquest of New Spain), Bernal Díaz del Castillo writes repeatedly and reverentially of the “great lady” Doña Marina. Without the help of Doña Marina, according to Díaz del Castillo, “we would not have understood the language of New Spain and Mexico.” La Malinche was consequently linguistically pivotal in the political dialogue and discourse that led to the conquest of Mexico. Nahuatl and Spanish represented lingua francas of the Aztec and Spanish empires respectively. She mastered the lingua franca of Central Mexico, Nahuatl, of the pre-European period and early colonial period and later learned the new lingua franca, Spanish, of colonial Latin America.⁴

Various nations from Europe—English, Spanish, French, Dutch, Russian and Portuguese were the foremost representatives—invaded the vast continent to be known as

¹The Nahuatl name derives from the most disastrous sign, *Ce Malinalli* (“I Twisted Grass”) of the Nahuatl divinatory 260-day calendar.

²Spanish chroniclers called La Malinche *la lengua*, “the tongue” or *nuestra lengua*, “our tongue,” Valdeon (2014, 51).

³It is not known whether La Malinche mastered the Aztec aristocratic language, *tecpillahtolli*, an eloquent oratory which was also used in diplomacy, in order to translate Moctezuma. See Valdeon (2014, 55–56).

⁴Baudot (2001, 156–157). Cf. also Valdeón (2014, 52–56).

the Americas from the beginning of the sixteenth century. Currently, English (North America) and Spanish (Latin America), with the exceptions of French (Quebec, Canada) and Portuguese (Brazil), dominate as *lingua franca* on this extensive cultural and linguistic continent. Hundreds of mutually unintelligible languages and language families⁵—exactly how many depends upon the different linguistic classifications—are recognized to have existed before the European invasion,⁶ many of which still exist,⁷ making the Americas a complex multilingual region.⁸

The concept “multilingualism” has received various definitions. Quite simply, I employ it in order to categorize the existence of and communication between two or more linguistic cultures, intralingual and interlingual, within a particular region and/or society. Economic, religious, scientific, social, military and political interaction promotes multilingual communication, for instance through alliances by marriage (endogamy), ritual collaboration, diplomacy, and trade. Among Indigenous American peoples there can be great linguistic diversity. For example, it is not uncommon among the Hupa of northwestern California to master five or more languages whereas peoples of another culture of North America, the Wappo of northern California, are recognized to have learned fourteen languages.⁹ Cultural and social multilingualism are exhibited in the Valleys of Coixtlahuaca and Tamazulapan-Teotongo (Mixtec. Tocuij Ñudzavui region) in the Mixteca of the state of Oaxaca, Mexico, which from the mid-sixteenth century contain a quite unique trilingual and bilingual corpus of Chocholtec of the Popoloca language family, Mixtec of the Mixtecan language family both belonging to Otomanguean stock and the Mesoamerican *lingua franca* Nahuatl of the Uto-Aztec stock (Nahuatl language family). In the colonial period there was a complex sociolinguistic setting of Chocholtecs (Ngiwa, Chochon, Chocho) and Mixtecs in different pueblos and barrios belonging to a linguistic composite polity. Multiple sociolinguistic polities were a rather common phenomenon in pre-European Mesoamerica.¹⁰ Moreover, families or lineages could be multilingual, through intermarriage, independent of the linguistic situation of the pueblo or barrio.¹¹ Multilingualism is accordingly signified by various exchanges between different languages in addition to the *lingua franca*. Despite considerable bilingualism or trilingualism¹² there is a requirement for communication across language borders, which necessitates a *lingua franca*.

A “*lingua franca*” constitutes a supralanguage employed as a method of communication between people who do not speak mutually intelligible vernacular languages. In quite a few cases, a *lingua franca* is political as it relates to linguistic imperial or authority sys-

⁵There are quite a few, although it is disputed how many, phylogenetic lineages, for example, language stocks, language families, and linguistic isolates in the Americas (cf. <http://mesandlingk.eu/project>), accessed April 4, 2017.

⁶Based upon civilization theories of the sixteenth century claiming that multilingualism is a sign of barbarism quite a few of the European invaders perceived the huge linguistic diversity of the cultures of South America as uncivilized: Pagden (1982, 126–136, 180); Mannheim (1991, 36–37).

⁷Around 42 million Indigenous people inhabit the American continent today.

⁸Cf. Campbell (1997); Mithun (1999). Linguists have classified different Indigenous American “Sprachbunde” and linguistic areas: Campbell (1997, 330–376); Mithun (1999, 311, 297–616). General surveys of American languages can be found in Adelaar et al. (2007); Campbell (1997); Mithun (1999); Campbell and Mithun (2014). Cf. also: <http://mesandlingk.eu/project>, accessed April 4, 2017.

⁹Miller (1996, 239).

¹⁰Cf. Lockhart (1992, 20–28).

¹¹Swanton (2008, 347–349, 360–361).

¹²For North America, cf. Miller (1996).

tems. Throughout history a great many empires had a propensity of impressing upon their subjects and conquered peoples the language of the governing elite, and the conceptual and terminological systems embedded within all cultural and social fields, whether economic, religious, judicial political, military, scientific, and educational. “Language empires” are imposed especially through political, religious, educational, and administrative systems and institutions. In addition, trade and diplomacy may generate particular lingua franca.

In 1492 (the year Christopher Columbus arrived on the continent later called America), after being presented with his book *Gramática de la lengua castellana* (“Grammar of the Castilian language”) Queen Isabella of Spain asked the linguist author Antonio de Nebrija: “What is it for?” The Bishop of Avila replied on his behalf: “Your Majesty, language is the perfect instrument of empire.”¹³

Language associated with philosophy, ideology, or a belief, symbol and practice system is definitely a powerful strategy when instigating not only a religious but also a cultural, economical, political, and social conquest. This combination of linguistics and theology is manifested by the grammarian Nebrija and the Bishop of Avila respectively. Language does not merely represent a linguistic system of grammar and phonology. The cultural history and collective identity, as well as the mindset, is embedded in language.¹⁴ The Arizona Tewa say: *Na:-bí hi:li na:-bí wowa:ci na-mu* “my language is my life (history)” according to Paul Kroskrity.¹⁵ Furthermore, Marianne Mithun maintains that language organizes experience into concepts and ideas. When it vanishes together with stories, ritual, symbols and oratory rhetoric, culture also disappears. Concerning the many endangered Indigenous languages of America she notes that Indigenous “speakers commonly remark that when they speak a different language, they say different things and even think different thoughts.”¹⁶ For instance, the Pirahã of the Amazon in central Brazil are monolingual despite more than 200 years of consistent contact with Brazilians and the Tupi-Guarani-speaking Kawahiv according to Daniel L. Everett.¹⁷

Portuguese is incommensurate with Pirahã in many areas and culturally incompatible, like all Western languages, in that it violates the immediacy of experience constraint on grammar and living in so many aspects of its structure and use. The Pirahã say that their heads are different. In fact, the Pirahã language is called 'apaitiso a straight head, while all other languages are called 'apagiso a crooked head. ... Given the connection between culture and language in Pirahã, to lose or change ones language is to lose ones identity as a Pirahã – hiaitih, a straight one/he is straight.¹⁸

¹³Hanke (1959, 8). In the prologue to *Gramática* Nebrija had, however, already stated: “siempre la lengua ha sido compañera del imperio,” “always the language has been the companion of empire,” Hanke (1959, 127, note 31). In addition, Nebrija writes in *Gramática* that “one thing I discovered and concluded with certainty is that language was always the companion of empire; therefore it follows that together they begin, grow, and flourish, and together they fall,” Rafael (1992, 23). This is an idea inspired by Lorenzo Valla's *Elegantiae* claiming a Latin connection to the empire of Rome. It also was asserted in Cicero's *De senectute* and later in grammars into Portuguese, Padley (1985–1988, 162, note 38); Asensio (1960).

¹⁴Leavitt (2011, 43). Cf. Swann (2011) for analysis of translations of Indigenous American languages into European languages.

¹⁵Kroskrity (1998, 104; 2000, 336).

¹⁶Mithun (1999, 2).

¹⁷Everett (2005, 621).

¹⁸Everett (2005, 633–634).

Portuguese is incommensurate with Pirahã in many areas and culturally incompatible, like all Western languages, in that it violates the immediacy of experience constraint on grammar and living in so many aspects of its structure and use. The Pirahã say that their heads are different. In fact, the Pirahã language is called 'apaitiso a straight head, while all other languages are called 'apagiso a crooked head. ...Given the connection between culture and language in Pirahã, to lose or change ones language is to lose ones identity as a Pirahã – hiaitih, a straight one/he is straight», Everett (2005, 633–634).

Multilingualism and lingua franca in the pre-European, colonial, and postcolonial Americas comprise a huge topic.¹⁹ Despite the destructive impact of colonial European and the later postcolonial nation states of the Americas, many different linguistic, religious, philosophical, and cultural systems of the Indigenous peoples are extant. In many places, epistemologies and languages have survived in the oral local traditions, which represent important sources of information for the various cognitive and linguistic systems. The objective of this, indeed limited, research review essay is to introduce some aspects of lingua franca and multilingualism fundamental to explications of religion, science, philosophy, and the political social system or of what Einar Haugen categorizes as “the ecology of language.”²⁰ Between the many Indigenous languages and between Indigenous and European languages of the Americas there is a variety of language contact such as the borrowing of vocabulary as well as phonological, grammatical, and semantic patterns.²¹ Expressed by various oral²² and scriptural technologies language is conceived in this study as a semantic system of interrelated concepts, for example, terminology intimately associated with knowledge, ideas, and practices. Epistemological concepts, also conceived visually and symbolically, can be transmitted and translated between different linguistic and intellectual (intersemiotic) systems. Where there is production, diffusion, and manipulation of epistemologies, ideas, and concepts but also an invention of novel terminologies and technologies for literacy, the semantic-linguistic implications for science, religion, philosophy, law, economics, and politics in multilingual and/ or lingua franca contexts are profound. It is exactly this epistemological, philosophical, and ideological aspect of multilingualism and lingua franca in America I intend to consider. I introduce the following methodical and analytical categories of intralingual and interlingual multilingualism and/ or lingua franca of the Americas in the following order: **Loanwords** and **calques**; taxonomy of **diglossia**: code-switching or compartmentalization, lingua nobilis, lingua sacra where there can be an exceptional literacy and numeracy; **lingua franca**; **scriptura franca** (pasigraphy); **translation**. These represent fundamental elements for an explication of the conceptional conditions and interactions of multilingualism and lingua francae.

¹⁹Linguistic research aims to establish early and secondary linguistic and migratory relations between North America and South America. Cf. for instance Adelaar and Wichmann (2011); Brown, Wichmann and Beck (2014).

²⁰Haugen (1972, 325).

²¹Campbell (1997, 10–13, 260–329); Mithun (1999, 311–325).

²²In tonal languages there can be various categories of oral cultural communication and function: whistle speech, speech, hum speech, musical speech, yell speech in Pirahã (Everett 2008, 185–189). Cf. Chinantec and other Mesoamerican whistle languages, Campbell (1997, 346, note 17).

18.2 Loanwords and Calques

There are various categories of linguistic borrowings²³ between Indigenous languages and Indigenous and European languages and vice versa. I will give a few examples of lexical loans. Borrowed words are particularly frequent in the vernacular vocabularies from the various Indigenous and later European lingua franca. One prominent example of a borrowed European word from an Indigenous language is the name of the nation-state “Canada,” which was introduced into novel lingua franca. “Canada” or *kaná:ta*, “settlement” is a loanword from the Haudenosaunee (aka Iroquoian) language Laurentian.²⁴

There are, however, examples where loanwords are ultimately ignored. As observed by Edward P. Dozier,²⁵ there is a reluctance in the Pueblo communities Tewa and Tao of the Southwest of the US to incorporate Spanish loanwords. Instead they construct new words (neologisms) or extend the meaning of existing words in their own languages.²⁶ The language ideology of the Arizona Tewa signifies linguistic conservatism and purism. After the Pueblo revolts of 1680 and 1696 this Pueblo group escaped Spanish influence by migrating in 1700 to the Hopi region and integrating into First Mesa Hopi society. The Arizona Tewa do not have nostalgic memory for homeland but maintain their Kiowa-Tanoan language. It was the only culture that kept their language and associated identity in the diaspora after the Pueblo revolt.²⁷ Moreover, the kinship terminology of the contemporary Qheswa (i.e. Quechua, descendants of the Inka empire) of the high plateau (*puna*) community Alccavitoria in the province of Chumbivilcas, Peru represents an interesting example of averseness to the practice of loanwords.²⁸ Bruce Mannheim notes that key terms are used in Quechua for kins in close economic cooperation. There is also another complex of loanwords from Spanish but without such a close relation,²⁹ which indicates a preference for Quechua instead of the Spanish of the colonizer. That an Indigenous language is favored instead of a European language is not uncommon even in Christian (Catholic and Protestant) religious ritual practices or scriptures.³⁰ On the other hand, there are many cases of grammatical and lexical loans between Indigenous languages and language families where in particular the politically dominant linguistic cultures are the lenders. For instance, lexemes from Quechua and Mapuche have influenced the vocabulary of minor Indigenous languages in the Andes.³¹ Due to language contact for more than a thousand years, Aymara and Quechua, which are probably two different Andean language families (Aymaran and Quechuan), have quite a few grammatical features and lexical items in common—Aymaran and Quechuan = Quechumaran.³²

²³Cf. classifications by Haugen (1972, 79–109).

²⁴Mithun (1999, 312). Cf. various lexical and grammatical borrowings of North America in Callaghan and Gamble (1996) and among North American Indigenous peoples, Foster (1996, 66–67).

²⁵Dozier (1956; 1958).

²⁶Mithun (1999, 311).

²⁷Kroskrity (1998, 104, note 2, 118–119, 105–110, 112; 2000, 331).

²⁸Quechua and Spanish are official languages of Peru.

²⁹Mannheim (1991, 24–26).

³⁰Cf. Pharo (2016; 2017).

³¹Adelaar et al. (2007, 5).

³²Cf. Adelaar (1986; 2007, 34–36); Heggarty (2005); Cerron-Palomino (2008).

Middle America or Mesoamerica³³ contains many pre-European writing and semiotic systems, which display variant examples of multilingualism. There were contacts between the different Mesoamerican cultures through migrations, pilgrimage, trade, diplomacy, war, tribute, and conquest. To some extent, the Mesoamericans shared principles of writing and pictorial-logographic systems, which were for instance employed in screen fold books aka codices. Despite numerous traditions and languages, the peoples of Mesoamerica had several cultural, philosophical, and religious elements in common.³⁴ Furthermore, there is evidence of multilingual and intellectual interaction between Mesoamerican and Indigenous cultures of the Southwest of the US demonstrated through ritual rhetorical languages such as *difrasismos* (diphraism) or paired couplets and metaphors.³⁵ This is also the case between unrelated languages from various groups of a particular region. The Pueblo culture, which consists of twenty villages in northern New Mexico and Arizona, contains nine languages.³⁶ Leslie A. White has established that exceptional concepts of prayers and songs of the ritual vocabulary among different Pueblo languages, belonging to singular language families and cultures, have been exchanged between the different linguistic groups.³⁷

The earliest documented, in writing, lexical borrowing between Indigenous languages of the Americas is probably the Mixe-Zoquean loanword *pomoj* or “copal (incense),” spelled syllabically **po-mo-ja** according to Søren Wichmann, inscribed in the earliest known Maya inscription (first century BCE) from the late preclassical mural of the city San Bartolo in Petén, Guatemala.³⁸ The San Bartolo inscription represents the earliest known example of deciphered writing in America.³⁹ This inscription represents an example of the so-called Olmec civilization’s (aka the “Mother culture of Mesoamerica”) influence upon the Maya. The Epi-Olmec culture (c. 300 BCE–c. 250 CE) in the central region of Veracruz of Mexico was a successor to the Olmec civilization (c. 1200–c. 400 BCE) in the Gulf coast region of southern Mexico. Its writing system is designated as Epi-Olmec or Isthmeian script from the Isthmus of Tehuantepec of Southern Mexico. The Olmec people were probably the predecessors of the existing Mixe and Zoque cultures of Oaxaca and Chiapas, Mexico. The word *pomoj* is accordingly a loan from the language family of Mixe-Zoque into the Maya language family.

Besides various loanwords from the neighbor linguistic culture (proto-) Mixe-Zoquean there are examples of borrowed terms from the more remote Uto-Aztecan language family (Nahuatl) in the classic Maya inscriptions.⁴⁰ Interactions between linguistic groups of

³³Mesoamerica has been defined as a cultural-geographical region incorporating the northwestern, central, and southern Mexico, Guatemala, Belize, and the western part of Honduras and El Salvador. In this area people, like the Maya, Aztec, Olmec, Zapotec, Toltec, Tlapanec, Teotihuacano, Tarascos, Otomí, Mixtec, and so forth, lived in sophisticated urban civilizations c. 1000 BCE–1521 BC ‘Mesoamerica’ was originally outlined as a cultural and geographical unity by Paul Kirchhoff in 1943, Kirchhoff (1943). Other definitions of this region have been suggested as well, cf. Carrasco (2001, ix, xiii). For a linguistic definition of Mesoamerica cf. Lyle Campbell, Terrence Kaufman, and Thomas Smith-Stark (1986).

³⁴Karen Dakin gives a survey of languages and language families in Mesoamerica at the time of the European arrival, Dakin (2010, 218, fig. 1).

³⁵Dakin (2010, 222).

³⁶Miller (1996, 224).

³⁷White (1944). Cf. Mithun (1999, 318).

³⁸Wichmann (2006c).

³⁹Saturno (2006, 8).

⁴⁰See Brown, Wichmann and Beck (2014); Dakin and Wichmann (2000); Kaufmann (2003); Lacadena and Wichmann (2004); Wichmann (1995; 1999a). Wichmann argues that there was an exchange of loanwords between Uto-Aztecan and Mixe-Zoquean (1999b).

Highland Mexico (Nahuatl) and the northern Maya lowlands are known from written recordings. There is evidence for linguistic contact between Nahuatl of the Nahua (Uto-Aztecan stock) of Central Mexico and the Maya in the writing systems of the Maya civilization. In sections of the Venus table of the postclassical Maya Dresden Codex, several Nahua deity names are spelled syllabically—**ta-wi-si-ka-la** or *Tlahuzcalpantecuhli*, **xi-wi-te** or *Xiuhtecuhli* and **ka-ka-tu-na-la** or *Cactonalli*(?)—in the Maya writing system.⁴¹ Moreover, Stela 13 from the Maya city Seibal located in the northern Petén Department of Guatemala from the late ninth century BCE contains a name of the Nahua wind deity *Ehecatl* (an aspect of the major deity Quetzalcoatl) spelled **e-je-ke**. Iconography and the calendar system of the inscription confirm a non-Maya (Central Mexican) origin suggesting the introduction of Venus/Quetzalcoatl from Central Mexico into the Maya religious system according to Alfonso Lacadena.⁴²

Scholars have identified many examples of calques or loan translations in Mesoamerica.⁴³ David Charles Wright Carr argues that in contrast to the European semantic practices in keeping or adapting the phonological form across linguistic frontiers, Mesoamerican linguistic cultures represent concepts with their own morphemes. According to Wright Carr, the quite extensive use of calque expressing the same concepts in Otomí (*hñāhñu*) of the Otopame family of the Otomanguean stock of Central Mexico and Nahuatl (Uto-Aztecan) suggest “an essentially homogenous plurilinguistic culture” in late pre-European and early colonial Central Mexico according to Wright Carr. He has identified calques of Otomí and Nahuatl in calendrical terms,⁴⁴ in the social system, kinship, confederations of society,⁴⁵ and deity names in early colonial dictionaries.⁴⁶ For instance, the important names of the Nahua deity Quetzalcoatl and Yucatec Mayan deity K’uk’ulkan both signify: “precious feather serpent.”⁴⁷

18.3 Intralingual and Interlingual Diglossia

The semantics of multilingualism and lingua franca is interrelated to the phenomenon of diglossia in a region or society. Diglossia or bilingualism contains quite a few linguistic elements or principles.⁴⁸ This linguistic analytical category conventionally refers to the use of a dominant majority (often a lingua franca) language vs. minority language(s), a so-called “high” vs. a so-called “low” language in a multilingual society or community. Diglossia also distinguishes between idioms or dialects of the same language. It is therefore important to point out that diglossia can be either interlingual or intralingual. Moreover, a prestigious, exclusive, and commonly arcane language of a minority social group used in particular con-

⁴¹ Taube and Bade (1991); Taube (1992, 120–121, 125–127); Whittaker (1986).

⁴² Lacadena (2010, 389–390).

⁴³ It would be interesting to look into the grammatical level where there might be in some “[...] stable bilingual communities [...] accommodation between symbiotic languages, such that they cease to reflect distinct cultural worlds: their sentences approach a word-for-word translatability, which is rare among really autonomous languages,” Haugen (1972, 335).

⁴⁴ Wright Carr (2009).

⁴⁵ Wright Carr (2008).

⁴⁶ Toponyms, anthroponyms, gentile nouns, “difrasismos,” and the names of social structures, animals, and plants, according to Wright Carr (2007; 2008). Thomas Smith-Stark has collected lists of calques in Mesoamerica giving evidence for linguistic diffusion in Mesoamerica. Cf. also Campbell, Kaufman and Smith-Stark (1986, 553–555).

⁴⁷ Dakin (2010).

⁴⁸ Cf. Calvet (1987, 44–49); Ferguson (1959); Fishman (1967).

texts (code-switching or compartmentalization) can oppose the colloquial language of the majority (e.g. the general public or commoners). This language of specialists or political privilege comprehends an extraordinary terminology or concepts not practiced in the vernacular. This also applies to gender. For instance, in the vocative of nouns in Classic Nahuatl men use the suffix *-é*, in this manner they emphasise the word whereas women transfer the accent from the penultimate to the last syllable (Launey: 81-82). The Chiquitano of the Andes have a gender-determined language where women employ unmarked forms whereas men apply masculine forms and endings. Only men make gender distinctions. The exception is when women and men respectively quote each other's speech.⁴⁹ Furthermore, linguistic codes of a restricted language not only have sociolinguistic and political implications, for example reflecting the organization of society, but in addition certain philosophical and cognitive qualities. In the Americas there are various examples of diglossia of an exceptional epistemology or ideology expressed in *lingua nobilis* and *lingua sacra*.

18.4 Diglossia of *Lingua Nobilis* and *Lingua Sacra*

There may be a variant (esoteric) language within a linguistic entity—where multilingualism becomes social, political, philosophical, or religious—categorized as the *lingua nobilis* or *lingua sacra* of a political and/or religious group in addition to “knowledge specialists.” This can be oral and scriptural where literacy can be both lexical and numerical, that is, in the latter case outline an exclusive numeracy.

The language of the classic Maya writing system may be classified as a ***lingua nobilis***. The classic Maya civilization⁵⁰ of the southern and the central lowland was (c. 200–c. 900 CE) organized in independent cities or city states, which consisted of a religious-political hierarchical and social differentiated system governed by an aristocracy and/or one or numerous lords called (*k'uhul*) *ajaw*.⁵¹ The Maya never created an empire like, for example, the later Aztecs of Central Mexico, but at certain moments in time certain cities managed to some degree establish local hegemonies (city states) during the classic period. The central southern lowland came to be depopulated in the terminal classic period (c. 800–c. 900 CE). From c. 850 CE a foreign Central Mexican influence is manifested in the classic Maya cities; as we saw earlier this is represented linguistically in the writing system with various loanwords from Nahuatl. After 900 CE the city-state culture of the southern and central lowland classic Maya civilization fell into decline and ended up being annihilated.⁵² The classic Maya writing system replicated the language aka ‘Classic Ch'olti'an’ of the aristocracy.⁵³

⁴⁹ Adelaar et al. (2007, 478–479).

⁵⁰ Archaeologists have designated the period of the lowland Maya as “classic” because of the existence of dates from the so-called Long Count calendar corresponding to c. 200–c. 900 CE found inscribed in their writing system on monumental architecture.

⁵¹ The constructed denomination “Maya” comprises around seven or eight million people who speak a Mayan language today (there are 29 extant Mayan languages). The various contemporary Mayan peoples constitute cultural and linguistic minorities in the Mexican states Veracruz, Tabasco, San Luis Potosí, Chiapas, Campeche, Yucatán and Quintana Roo, in Belize, in Guatemala, in the western parts of El Salvador and Honduras.

⁵² Cf. Martin and Grube (2000); Houston and Inomata (2009). The regents of the most prestigious dynasties are from the fourth century bearing the *k'uhul ajaw* (“sacred lord”) title, a title that spread to the smaller cities during the Classic period. This was to distinguish the rulers from the increasing aristocracy who came to usurp the *ajaw* title, Houston and Stuart (1996, 295); Martin and Grube (2000, 17).

⁵³ Houston, Robertson, and Stuart (2000).

The level of literacy among the different social strata is, however, disputed.⁵⁴ Despite dialectal differences, Stephen D. Houston asserts that due to marriages and alliances there was an “elite diglossia” making the independent cities of the classic Maya civilization unified and the inscriptions “monoglot.”⁵⁵ Written Classic Ch’oltian held symbolic prestige, which legitimized the rulership of native speakers of Tzeltal and Yucatec.⁵⁶ But the sociolinguistic and multilingual condition is more complicated, making a *lingua nobilis* less heterogeneous. Classic Yucatec also influenced the written language of the elite and spoken Ch’oltian through loanwords. Lacadena and Wichmann emphasize that in Northern Yucatan in the classic period, Classic Yucatecan was a literary language “alongside the more universally prestigious medium for written communication, which is of Ch’olan derivation.”⁵⁷

A colloquial (common) vernacular might not only oppose a political *lingua nobilis* but also a religious (sacred) and ceremonial language or **lingua sacra**. The vocabulary may be particularly elaborated and replicate a definite emphasis. Especially known for their impressive illustrated pictorial-logographic manuscripts (*ñii ñùhu*, “sacred skin”) from the post-classic (c. 900 CE) and early colonial period, the Mixtecs⁵⁸ of Oaxaca, Mexico refer to themselves and their territory as *Ñuu Savi*, *Ñuu Sau*, or *Ñuu Dzavui*,⁵⁹ “people of the rain” or “the people belonging to the rain god”⁶⁰ or “La Mixteca,” “people of the cloud place” in Nahuatl. In Mixtec pictorial-logographic manuscripts the signs and numeral coefficients of the 260-day calendar correspond to the same Nahua calendar. The Mixtec employed, however, an extraordinary language—various versions are known from the different dialects—for the day signs and day numbers of the pivotal 260-day calendar.⁶¹ For instance in the language of the Nahua, Nahuatl, the day (or year) “One Reed” is rendered as *Ce Acatl* in the colloquial vocabulary. Conversely, in order to render “One Reed” from the 260-day calendar, the Mixtec did not employ the vernacular *Een Doo* but instead *Ca Huiyo* for “One Reed.”⁶² Furthermore, the legendary Mixtec Lord Eight Deer would be named *Naa Cuaa* after the day of the 260-day calendar he was born and not by the conventional number *una* (“eight”) and word for the animal *idzu* (“deer”). Table 1 demonstrates the difference between names and numbers and calendar names and day numbers of the Mixtec 260-day calendar.⁶³

⁵⁴Cf. Houston and Inomata (2009).

⁵⁵Houston (2011, 27–28).

⁵⁶Lacadena García-Gallo and Wichmann (2005, 40). Cf. the thorough grammatical study by Danny Law about interaction and contact between Maya languages in the lowlands (2014).

⁵⁷Lacadena and Wichmann (2002, 313); Wichmann (2006a).

⁵⁸The Mixtec language is called *Tu’un Savi* “language of the rain” where *tu’un* can be translated as “words; talk; language; history.” *Dadavi*, “language of the rain” where *da* is a contraction from *da’an*, “language” and *davi* is “rain.” A variant is *Daidavi*, “sacred language of the rain” where *i* of *dai* means sacred. *Da’an Nuu Davi*, “language of the Pueblo of the Rain” whereas *da’an enka ñuu*, “language of the other Pueblo” is used in order to describe a foreign language. In addition the verb *ka’an* can be employed to describe the language of the Mixtecs, López García (2008, 407–408).

⁵⁹There are different spellings according to the various dialects (Perez Jimenez (2008, 13).

⁶⁰The term “Mixtec” derives from Nahuatl *mixtecatl*, “Cloud People,” Whitecotton (1977, 23).

⁶¹Mixtec is a tonal language with high, mid, and low tones, which probably explains the apparent identical words for different numerical coefficients. See Smith (1973, 26).

⁶²Dahlgren (1954, 282–287); Smith (1973, 23–27); Boone (2007a, 4).

⁶³The 260-day calendar consists of the combination of 13 numbers and 20-day names (13 x 20 = 260 days).

Normal Vocabulary (Alvarado Dictionary)	Special Day-Sign Vocabulary
1. Ee coo yechi	ca, co quevui (1 Alligator).
2. Vvui tachi	ca, co, cu chi (2 Wind).
3. Uni huahi	co cuau; mau (3 House).
4. Qmi, cumi (ti) yechi	qui q(ue) (4 Lizard).
5. Hoho coo	q yo (5 Serpent).
6. Iño ndeye, sihi	ñu na mahu(a) (6 Death).
7. Usa idzu, sacuaa	sa cuaa (7 Deer).
8. Una idzo	na sayu (8 Rabbit).
9. Ee nduta	q tuta (9 Water).
10. Usi ina	si hua (10 Dog).
11. Usi ee codzo	si i ñuu (11 Monkey).
12. Usi vvui yucu	ca cuañe (12 Grass)
13. Usi uni ndoo	si huiyo (13 Reed).
14. Cuiñe	huidzu (Jaguar).
15. Yaha	sa (Eagle).
16. (ti)sii	cuii (Vulture).
17. tnaa, nehe	qhi (Movement).
18. Yuchi	cusi (Flint).
19. Dzavui	co (Rain).
20. Ita	huaco (Flower).

Table 1: The Mixtec 260-day calendar: Dahlgren (1954, 282–287); Smith (1973, 23–27).

Moreover, Michael W. Swanton and G. Bas van Doesburg⁶⁴ have found that not only the Mixtec but also the Chocho-Popoloca, whose 260-day calendar has in general different day-names from the Mixtec 260-day calendar, from the same region employed a special vocabulary of the names of the days of the 260-day calendar different to their ordinary vocabulary. The only exceptions are the days for “wind” and “water.”

The Mixe (Mije)⁶⁵ of the southern part of Mexico had an extraordinary vocabulary for calendar numerology but apparently not for the calendar days.⁶⁶ The Table 2 shows the difference between Mixe colloquial numbers and calendar numbers:

The different designations of numbers suggest an exceptional numerology or perhaps a **lingua numerica** today used in some Mixe communities.⁶⁷

⁶⁴Swanton and Doesburg (1996).

⁶⁵The term Mixe or Mije originates from Nahuatl. The Mixe apply *Ayu:k*, “word” or “language,” which is etymologically connected to *ha’ y yu:k*, “people of the mountains” to identify themselves as a particular culture. See Lipp (1983, 7; 1991, 1).

⁶⁶Smith (1973, 23–27); Lipp (1983, 203–205; 1991, 62–63); Duinmeijer (1997, 180–181); Boone (2007a, 4). The application of the thirteen calendar numbers is today restricted to pueblos of the lowland. The calendar numbers are close to ordinal numerals of the Zoque of the same language family, for example, Mixe-Zoque, Lipp (1983, 204); Duinmeijer (1997, 181–182). The Mixe calendar numbers might have become tabooed in everyday life and therefore confined to the 260-day calendar according to Søren Wichmann, Duinmeijer (1997, 181–182).

⁶⁷Cf. Lipp (1983; 1991).

Calendar numbers	Mixe numbers	Day names
1. Tu.m	tu'k	hukpi (root)
2. mac	meck	sa'a (wind)
3. tu:k	tukok or to.hk	how (palm)
4. makc	maktask	hu:'n (hard, solid, resistant i.e. of tree or hb).
5. moks	mugo.sk	ca'an (serpent)
6. tuht	tudu:k or tuhti.k	?uh (earth, world)
7. kuy	westu:k	koy (rabbit)
8. tu.gut	tuktu:k	na:n (deer)
9. ta:s	tastu:k	ni'in (water, river)
10. mahk	mahk	ho'o (?)
11. ki'in	mahktu'k	hai.m (fine white ashes)
12. ki'is	mahkmeck	ti'ic (tooth)
13. pagac	mahktikok or maktu.hk	kep (reed)
14.		ka: (jaguar)
15.		hu.ik (tobacco)
16.		pa'a (edge, border, to break)
17.		?uhs (earthquake)
18.		tahp (covered up, darkening)
19.		miy (grass)
20.		hugi'ñ (point [weaving])

Table 2: The Mixe 260-day calendar (*si: tu'u* “road of days” or *si: may: y'g*, “to divine” or “to count the days”), Lipp (1983, 203–205; 1991, 62–63).

An especially sacred (ceremonial) terminology is not uncommon in Indigenous linguistic cultures of the Americas where there is an extraordinary and an ordinary vocabulary with different words for semantic equivalents (synonyms). In Pueblo languages, White has recorded quite a few examples.⁶⁸ For instance the word for “rain” is *katca'ata* in the vernacular but *ci'wana* in the ceremonial language of Santa Ana Pueblo.⁶⁹ There is an American intralingual diglossia, which is not only religious but also social and political. In field research among the Mixe (Ayuujk), Araceli Rojas Martínez Gracida observes that there is a special language with parallelisms, difrasismo, and particular expressions used in ceremonies by *xëë maywë*, calendar specialists, but also when taking offices in the government of the community. This requires particular ability by particular people, which they acquire over many years.⁷⁰ A stylized version of a particular religious, social, and political language where there is a paired couplet (difrasismo) connoting semantic associations exists

⁶⁸White (1944).

⁶⁹White (1944, 164). Cf. Miller for ceremonial rhetoric of various Indigenous cultures in North America (1996, 225, 231–232).

⁷⁰Rojas Martínez Gracida (2012, 122).

in many Mesoamerican languages: K'iche', Tzeltal, Tzotzil, Yucatec, Nahuatl, Ocuiltec, Amuzgo, Popoloca, Totonac, Mixe-Zoque, and so forth.⁷¹ Special (esoteric) and ritual languages with an extraordinary terminology, proverbs, riddles, and metaphors are known from pre-European manuscripts.⁷² It was called *iya* in Mixtec culture;⁷³ today in ritual religious language it is denominated as 'parangón' in Spanish and categorized as *shahu* or *sa'vi* (Sp. "palabra de reverencia") in Mixtec. With its distinct style and structure, this exceptional language is employed in particular by peoples with a socio-political and religious office (cargo). It is the group of elders called *Tanisa'nu*, "señores principales o caracterizados" or *tse ka'an sa'vi*, "people who speak the ceremonial language" who use and have exclusive knowledge of the *sa'vi*.⁷⁴ In Nahua culture an arcane language was called *nahualltoli*⁷⁵ or *yectlatolli*, "formal speech" of the contemporary Nahua from Puebla and the State of Mexico.⁷⁶ There was also a favored language *tecpillatolli* of the nobility⁷⁷ and a particular moral and political discourse *huehuetlatolli* by knowledge specialists composed of elders.⁷⁸ Furthermore, The Book of *Chilam Balam of Chumayel* of the Yucatec Maya contains the *Zuyua* language (*Zuyua Than*) exclusive to the initiated elite, which is also in Popol Wuj of the K'iche' Maya.⁷⁹ It constitutes riddles, which educate and legitimize rulers.⁸⁰

Kroskrity advocates that a strategic usage of interlingual or intralingual diglossia through **code-switching** or **compartmentalization** constitutes a linguistic ideology and simultaneously a language maintenance strategy among the Arizona Tewa.⁸¹ Tewa language ideology gives eminence to ceremonial kiva talk (*te'e hiili*). During a ceremony the Tewa do not employ foreign (including Hopi or other Indigenous) words or an alien social dialect. Accordingly, there is no linguistic innovation but invariable stories, prayer, and songs. Hopi and English are, however, applied in the colloquial, although foreign influence is kept from the Tewa vernacular, which gives them an economic and political advantage. Furthermore, there is a resilient linguistic indexing of sociocultural identity marked by evidential particles and self-reference.⁸² Code-switching between Hopi and Tewa exhibit that "[...] the Arizona Tewas identify both as Hopi and as Tewa and use these distinct languages to interactionally construct these identities [...]"⁸³

I conclude this section elucidating how Nahuatl as *lingua sacra* is employed in order to convey a divine message from the European (and Middle Eastern) Virgin Mary shortly after the Spanish invasion of Central Mexico. Concurrently, the example serves to introduce the next chapter of *lingua francas* of empires. On December 9 and 11, 1531 CE, the Nahua Juan Diego Cuauhtlatoatzin or Juan Diego (1474–1548 CE) was, according to Mexi-

⁷¹Campbell, Kaufman and Smith-Stark (1986, 558); Campbell (1997, 346, note 19).

⁷²Anders and Jansen (1993); Jansen and Pérez Jiménez (2010; 2011); Anders et al. (1992); Mikulska Dabrowska (2008; 2010).

⁷³Jansen (1985, 7–10).

⁷⁴Pérez Jiménez (2008, 220–222); López García (2007; 2008, 409–412).

⁷⁵López Austin (1967).

⁷⁶Peralta Ramírez (2004, 175).

⁷⁷López Austin (1967).

⁷⁸García Quintana (2000); Sullivan (1986); Mikulska Dabrowska (2010).

⁷⁹Colop (2011).

⁸⁰Stross (1983); López Austin and López Luján (1998). For a comparative analysis and a survey of sources to this subject cf. the work of Katarzyna Mikulska Dabrowska (2008; 2010).

⁸¹Kroskrity (2000).

⁸²Kroskrity (1998, 104, 118–119 note 2, 105–110, 112; 2000, 25, 331, 336–340).

⁸³Kroskrity (2000, 340–342). Cf. also Kroskrity (1992; 1993).

can Catholic tradition, the one who reported the apparition of Nuestra Señora de Guadalupe or Our Lady of Guadalupe on Tepeyacac or Tepeyac hill—originally dedicated to the Nahuatl goddess Tonantzin (“Our Revered Mother”)—north of Mexico City. Virgin Mary, called “La Morenita” (“the little brunette”), communicated a sacred message in Nahuatl to Juan Diego. He translated the meaning from Nahuatl, the present lingua franca of pre-European Central Mexico, into the new lingua franca of Spanish for the first bishop of New Mexico Juan de Zumárraga.⁸⁴ The Nahuatl speaking Virgin Mary or Our Lady of Guadalupe today enjoys global reverence. She has her own chapel beside the grave of St. Peter in the St. Peter basilica in Rome and in the Notre Dame cathedral in Paris. In January 1999 the Roman Catholic Church declared the multilingual Virgin Mary of Guadalupe the first and greatest evangelist of America.⁸⁵

18.5 Lingua Franca of Empires and Regions of the Americas

Multilingualism with a (common) lingua franca is found when interconnecting multiple socio-political and/or cultural groups have a different primary language but where there is a general (prestigious) secondary language with mutual intelligibility employed in intergroup communication.⁸⁶ Lingua francas also epitomize, however, asymmetric multilingualism. It is habitually the language of the dominant socio-political and/or cultural group that operates as a lingua franca. Consequently, in many cases there is a politics of lingua franca.

There are indeed numerous regional lingua francas (Sp. “lenguas generales” in Latin America) or contact languages of prominent nations, political alliances, confederacies and empires of the multilingual American continent before and after the European arrival. Lingua franca comprise many (sub-)categories. It is important to make a distinction of lingua franca of languages of the same but also of different language families of a region. Moreover, there are different constructed forms of lingua francas. For instance, a simplified grammar and lexicon of a language classified as “foreign talk” but also hybrid systems, trade languages, jargon, and pidgin.⁸⁷ From the sixteenth century onwards, English and French in North America and Spanish and Portuguese in Latin America (with some exceptions) have functioned as lingua franca in colonial and postcolonial America. I will not concentrate upon Indo-European colonial languages or neindigenous pidgin, creolized or other lingua franca after the European invasion. Instead, I will focus upon Indigenous American lingua francas where I will bring attention to, in particular the lingua francas of Middle American and South American empires of the pre-European and early-colonial period.

First, however, I will give examples of lingua francas in North America, although much of the data are uncertain regarding lingua franca between Indigenous peoples. There are French reports in the seventeenth century about Algonquin and Huron as languages functioning as lingua franca in New France. But this cannot be substantiated. Later observations of Southwestern Ojibwa or “Chippewa” (aka Saulteaux or Algonquin) in the western Great Lake area, Ottawa (“Chippewa”) between Lake Michigan and Lake Ontario and Cree north of the Great Lakes were regional lingua francas respectively. Occaneechi of Virginia lingua was apparently also the lingua franca used by Algonquinan nations in the Southeast.

⁸⁴Laso de la Vega (1998, 61–89).

⁸⁵Poole (2001, 446–447).

⁸⁶Silverstein (1996, 117).

⁸⁷Campbell (1997, 10, 18–25, 145); Mithun (1999, 319, 322–325, 603–604).

Confederacies like the Creek Confederacy in North America may have employed Creek lingua franca between the member groups. Quite a few Siouan languages were applied as lingua francas on the western Plains as well as Navajo in the southwest. In addition, a pidgin or jargon (e.g. Muskogean Mobilian Jargon of southeast) could have been developed before European contact.⁸⁸ Quite a few other regional lingua franca could be mentioned.⁸⁹ Interestingly, despite only having been developed as a definite language from Shoshone at the beginning of the eighteenth century, in the nineteenth century the Central Numic Uto-Aztecan language Comanche became a lingua franca during their short-lived empire on the southern Plains.⁹⁰

There is more knowledge about the linguistic empires just before the European invasion of Middle America and South America. Classical Nahuatl,⁹¹ the language of the Aztec⁹² empire⁹³ of multilingual Central Mexico, was a lingua franca in the post-classic and the early colonial period in Mesoamerica.⁹⁴ Nahua refer to Indigenous peoples of Middle America speaking one of the related dialects of Nahuatl (“intelligible,” “clear,” “audible”). Millions of descendants of the Nahua, who once formed the Aztec Empire, are living in Mexico today.⁹⁵ Because the Aztec empire dominated a great part of Mesoamerica before the Spaniards arrived at the beginning of the sixteenth century, numerous written recordings outline Nahua culture in Central Mexico. In addition to dictionaries, grammars (Sp. *Arte*), and anthropological data, Catholic missionaries produced a considerable Nahuatl catechistic or doctrina literature. Moreover, Spanish civil and religious officials used Nahuatl as an administrative language in the early colonial period.⁹⁶

The practice of a lingua franca differed, however, among linguistic groups in the same multilingual region.⁹⁷ For instance, in Villa Alta, Oaxaca, three variants of Zapotec, Mixe, Chinantec, and Nahuatl were used in the colonial period. Zapotec, Mixe, and Chinantec were primary languages whereas Nahuatl was used as a secondary language. Zapotec, as well as Nahuatl, were employed in alphabetic writing, translated in oral and written testimony, in business and law records, and for evangelization. The Chinantec applied Bijanos Zapotec whereas the Mixe applied Nahuatl as their intermediary language. The Mixe elite applied Nahuatl as a prestige language for speaking and writing, as they could not write their own

⁸⁸Silverstein (1996, 118–121); Mithun (1999, 319, 322–325); Taylor (1981, 177–179).

⁸⁹Cf. overview in Mithun (1999); Taylor (1981).

⁹⁰Cf. Hämäläinen (2009); Mithun (1999, 542).

⁹¹Classical Nahuatl refers to the colonial Nahuatl dialect that is generally used in documents from Central Mexico.

⁹²The Prussian scholar Alexander von Humboldt and the American historian William H. Prescott introduced the word “Aztec” to the Western public in the early nineteenth century. I apply the term “Aztec” instead of “Mexica” despite the fact that several scholars, since Robert Barlow in 1949, have pointed out that this designation is incorrect.

⁹³The term “Aztec” derives from *aztecatl*, “person from Aztlán.” Aztlán, which can be paraphrased as “the white place” or “the place of the herons” in Nahuatl, was the designation for their mystic place of origin. The name “Mexica” was given to the Aztecs by their patron deity, Huitzilopochtli, during their migration from Aztlán. The Aztecs or Mexica was originally a Nahuatl-speaking nomadic nation. They founded the city of Tenochtitlan, today’s Mexico City, which became the capital in the northern and central part of Mexico 1345–1521 CE, (López Austin 2001); Nicholson (2002, 17).

⁹⁴Dakin (2010).

⁹⁵Nahuatl-speakers reside in Federal District (Mexico City, D.F.), Durango, Guerrero, Michoacán, Morelos, Oaxaca, Puebla, Jalisco, Nayarit, San Luis Potosí, Tabasco, Tlaxcala, Sonora, Sinaloa, and Veracruz in Mexico, but also in El Salvador, Guatemala and Nicaragua, Sandstrom (2010, 23).

⁹⁶Karttunen and Lockhart (1977); J. H. Hill and K. C Hill (1986); Lockhart (1992).

⁹⁷Robert C. Schwaller (2012) argues that Nahuatl as lingua franca varied, according to different factors, in the colonial period.

language or Spanish. The Aztec never conquered the Sierra Norte. Nahuatl was accordingly originally a trade language later applied as a lingua franca by the Spanish colonial administration and the Dominican Order.⁹⁸

Codex Sierra Texupan is a sixteenth-century book of community accounts from Santa Catalina Texupan, a community in the Mixteca Alta (1550–1564), and encompasses analogous Mixtec logographic-pictorial, Nahuatl alphabetic commentary, and Latin, Arabic and Mesoamerican numerical components. The Mixtec and Chocho or Popoloca (Ngiwa) scribes employed images and words in a complementary manner in order to communicate to a multilingual public. *Codex Sierra Texupan* was produced in Mixtec and Chocho or Popoloca (Ngiwa) Santa Catalina Texupan but written in Nahuatl. The manuscript thus exemplifies the transitional character of Nahuatl in a multilingual region, before alphabetic writing was fully developed in an Indigenous language.⁹⁹

Nahua intellectuals recorded history in the Latin script not in Spanish but Nahuatl, the lingua franca of the early colonial period. For instance, the Nahua chronicler Domingo Francisco de San Antón Muñón Chimalpahin Quauhtlehuanitzin (1579–16?) contributes scant and incoherent but still vital information in *Diferentes Historias Originales*. As an historian Chimalpahin wrote accounts of various polities or *altepetl*—Tenochtitlan, Tlatelolco, Tetzaco, and so forth, organized in *xiuhtlapohualli* (year annals). Chimalpahin was a learned Indigenous (Nahua) annalist and a descendent of the ruler lineage of Tzaqualtitlan Tenanco, a subdivision of Amecameca (Amaquemecan), Chalco. Dominican friars from the local monastery probably educated him. Chimalpahin moved to Mexico City when he was fourteen years old. Writing in Nahuatl, he had access to ancient pictorial-logographic manuscripts. Chimalpahin transcribed these into alphabetical script and travelled to other cities to search for material and interview distinguished elders in order to corroborate his information.¹⁰⁰

The Inka ruled the largest known empire, c. 1430–1532 CE, in the Americas before the European invasion. They spoke a dialect of Quechua, which became an administrative lingua franca within the multicultural and multilingual empire and for a period after the Spanish conquest (early colonial period). The Inka may have called themselves *Runa*, “people” or “human beings,” which the present-day descendants Quechua (*runa simi*, “human speech”)¹⁰¹ still do today. Quechua is the most widely spoken Indigenous American language, with over 8 million speakers. There is a quite extensive colonial literature only comparable to Nahuatl and Maya of Mesoamerica. There is a plethora of cultures and languages in the Andes, quite a few unrelated, but of course far more when the Spanish arrived, which the Inka empire called *Tawantinsuyu* (“the parts that in their fourness make up a whole”) in 1532.¹⁰² Four of the most used languages in the empire were Puquina, Mochica (or Yunga), Aymara and Quechua. Southern Peruvian Quechua dialect was employed as a political, religious, and administrative lingua franca by the Inka administration.¹⁰³ A majority of Andean linguists agree that the lingua franca of the Inka Empire was not founded upon Central Cuzco

⁹⁸Yannakakis (2014, 83–87).

⁹⁹Cf. Terraciano (2015).

¹⁰⁰Schroeder (2001, 196–198).

¹⁰¹Quechua is probably an invention by the Spaniards from *gheswa simi*, “valley speech,” Mannheim (1991, 6).

¹⁰²Cf. Pärssinen (1992).

¹⁰³Around two million peoples use Southern Peruvian Quechua today in the departments of Apurímac, Arequipa, Ayacucho, Cuzco, Huancavelica and Puno, Mannheim (1991, 4–5).

(the capital of the Inka Empire) dialect but a dialect from the Central Andes.¹⁰⁴ Initially, the Spanish apparently used this dialect as a lingua franca but soon changed to Quechua of the southern highlands. The Spanish administration and missionaries in the early colonial period, that is, the late sixteenth and early seventeenth century, promoted what is known as pastoral Quechua or a standardized variety of Southern Quechua. Furthermore, they classified the multilingual Andean region as *lenguas generales* ("widely spoken languages") and *lenguas particulares* or *lenguas maternas* (local languages).¹⁰⁵ Although a lingua franca, Bruce Mannheim maintains that Quechua never was hegemonic or standardized in the multilingual pre-European Inka Empire, not even in the region close to the capital. Through local lords the Inka had an indirect rule. Moreover, there is nothing to suggest that they tried to impose their language upon the conquered peoples but local administrators were to learn Quechua. Reports claim that the Inka evacuated the Ayacucho region and replaced the local population with colonists (*mitmaq*) of various ethnic and linguistic origins from other regions of Tawantinsuyu. In other regions, the invasive groups of settlers (*mitmaq*) enjoyed a higher status and kept social, ritual and linguistic contact with their homeland.¹⁰⁶ The Inka lingua franca was accordingly practiced among the *mitmaq* and between ethnic polities and the Inka state.¹⁰⁷ The supposed founder of the Inka dynasty, Mango Qhapaq, demanded that the language and dress of a group should be different. It would then be easy to recognize their place of origin. Language was intimately connected to territory, establishing the cultural identity of certain people in the Andes, but language does not necessarily correspond to ethnicity. Linguistic boundaries persisted in central Peru at least 1000 years before the arrival of the Europeans. Later, the Spanish colonizers linguistically "homogenized" the former Inka Empire by not only introducing Spanish of socio-political domination but also advancing Southern Peruvian Quechua over the numerous other Andean languages. Spanish therefore became the common language of the dominators (descendants of the Spanish invaders) whereas Southern Peruvian Quechua remained the common language of the dominated indigenous peoples of the Andes today.¹⁰⁸ Consequently, it is the same situation as in other parts of postcolonial America.

Like Chimalpahin, the bilingual-speaker Felipe Guaman Poma de Ayala (1530s?–1540s? CE–c. 1616 CE), born of Quechua speaking indigenous parents, made use of a non-European lingua franca in *El primer nueva corónica y buen gobierno*. This is an extensive book of Andean history and guidance for colonial governance (1615/1616 CE). Indoctrinated into Christianity, Guaman Poma de Ayala served in missionary campaigns.¹⁰⁹

¹⁰⁴Cf. Ramos (2011, 21–23) for references to theories about the origin and dissemination of Andean languages.

¹⁰⁵Cf. Adelaar et al. (2007); Ramos (2011, 21–23); Torero (1974; 2002); Durston (2007, 37, 40–42, 190–191); Mannheim (1991, 2, 6, 9, 16–21, 34–35, 43–47, 50–51, 64, 80); Itier (2011, 74). Durston (2007, 109–110) claims that this "Standard Colonial Quechua" was a written construction by Spanish clergy used in pastoral scriptures and not a spoken language. Itier (2011) argues that this was a spoken lingua franca. Cf. Itier (2011) for summary and references to theories about Quechua as a colonial lingua franca (*lengua general*).

¹⁰⁶"The linguistic complexity was socially significant. For instance, in Vilcashuamán language, differences were used as one of the bases for determining the pattern of resettlement of *mitmaq* colonists, with Quechua speakers assigned to the temperate valleys (*gheswa*) and Aymara speakers assigned to contiguous high *punas*. In Collaguas and Cavanäs (Arequipa), the Quechua-speaking Cavanäs maintained a stable symbiotic relationship with the Aymara-speaking Collaguas," Mannheim (1991, 49).

¹⁰⁷Ramos has, however, recently suggested that the Inka introduction of other linguistic groups into the Cuzco region fortified Quechua as a lingua franca. This immigration continued after the Spanish arrival, Ramos (2011, 27–28).

¹⁰⁸Mannheim (1991, 2, 16, 45–47, 49–53).

¹⁰⁹Adorno (2011).

On pp. 22–47, 48–85 ten ages of human history are outlined: five of Christian and Andean history respectively. There are also ten ages of the ancient Andean past and future. The ninth period delineates the present age, whereas the tenth period of the future defines—symbolically important in Quechua and not Spanish—an exclusive Andean hegemony with “our Christianity,” according to pp. 48–85, 925. The last Christian Inka (his son) should have autonomous rule of the “preferred” Andean region (p. 963) under the universal Christian rule over Christians and non-Christians by the Spanish monarch.¹¹⁰

Apart from Southern Peruvian Quechua, Mapuche and Muisca operated as regional *lingua francas* in the Andes.¹¹¹ In Amazonia, the Tukano language in the Vaupés region of the northwest Amazon basin (Brazil) is a *lingua franca*. Previously in the same region Tupí-Guaraní dialects, a creolized form of Tupinamba known as *Língua Geral* (“general language”) or *Nheengatu*, was the *lingua franca* of the Amazonian region. It was replaced with Tukano as *lingua franca* by civil authorities and Catholic missionaries. Tupí and its dialect, Paraguayan Guaraní, survive in Paraguay as the national language.¹¹² The community in the Vaupés region of the northwest Amazon basin represents a particular interesting case of multilingualism and regional *lingua franca*. There are three unrelated language families—Tukanoan, Carib, Arawakan—and twenty languages but with more or less the same material culture and social organization. The people are horticulturalists living in multifamily patrilocal longhouses, which are separated by a few hours or a day walk. The longhouses are multilingual but share a common language. These can be classified as subunits of “language aggregates” but with no determined territory or organization. People have to marry another person who is not member of the same “language aggregate.” Language identity is accordingly fundamental in the marriage system where linguistic exocamy is practiced. The majority of speakers can master three languages fluently, while many people know more than four or five. There are also people who can understand ten languages. As noted, Tukanoan (Tucano) constitutes the *lingua franca*. Language reflects social identity but there is no status in speaking a particular language. As there is no linguistic hegemony, the choice of language between the multilingual speakers is therefore not determined in communication.¹¹³

18.6 Writing Systems and Scriptura Franca Representing Multilingualism and Lingua Franca

The different linguistic strategies of literacy (writing and semiotic) systems reflect multilingualism and *lingua francas* of the Americas. The various graphic communication systems can be multilingual but also predominantly monolingual.¹¹⁴ They may well also represent a hegemonic *lingua franca*.

Multilingualism and *lingua franca* are communicated and manifested in different manners in the various graphic systems of indigenous cultures of the Americas. A graphic (writing and semiotic) system may represent a particular language—although it can include grammatical elements, loanwords, calques, or neologisms from a different language—that is, be exclusively phonetic, for example, glottographic. It can moreover contain semiotic codes

¹¹⁰Adorno (2011, 76–77).

¹¹¹Adelaar (2007, 3).

¹¹²Aikhenvald (2002, 16, 20–21, note 8).

¹¹³Cf. Jackson (1974); Mannheim (1991, 32–33).

¹¹⁴Cf. Frank Salomon and Sabine Hyland for examples of Indigenous American systems of graphic pluralism (2010).

and signs shared by people of different languages representing a *scriptura franca*, for example, basically non-phonetic, or there can be a synthesis between phonetic graphic systems and a *scriptura franca*.¹¹⁵ The history of literacy in the Americas can simply be summarized as: c. 1000 BCE–c. 1700 CE, non-European Indigenous writing and pictorial-logographic (semiotic) systems dominate. Subsequently, from around 1520 CE to the present day, colonial intersemiotic systems and colonial and postcolonial alphabetization campaigns were introduced into the Latin script by foreign missionary linguists and civil governments and administrations of the different nation-states.

18.7 Phonetic Graphic Systems in Mesoamerica and North America

Due to phoneticism, the logosyllabic (Maya, Zapotec; Nahuatl; “Epi-Olmec” or Isthmian¹¹⁶ of Mesoamerica and the later Mikmaq of North America), syllabic (Cherokee, Cree; Inuktitut of North America¹¹⁷), and alphabetic (also with pictorial-logographic systems in the early colonial period) constitute writing systems representing a particular language.¹¹⁸ Consequently within a multilingual context, the use of a phonetic graphic system implies that one language is given preference instead of a linguistically miscellaneous pictorial-logographic system.

A logosyllabic writing system, also called “hieroglyphic” (gr. *hieros* “sacred” and *glufos* “writing”),¹¹⁹ denotes a writing system incorporating two types of signs. These are word signs, also called logograms (gr. *logos*, “word,” *gramma*, “is written”), and phonetic syllables or vowel signs (sound signs). The logosyllabic writing system consists of logographs for whole words and signs for syllables and vowels. Logosyllabic writing, because it is phonetic (glottographic; gr. *glotta*, “tongue”), provides opportunities to express abstract ideas and concepts through a specific language. During the late preclassical period (c. 600–c. 200 BCE) logosyllabic writing systems were developed in Mesoamerica. Isthmian (aka Epi-Olmec), Maya, Zapotec cultures have geographical proximity. There are semiotic similarities of the signs of these preclassical writing systems but each scripture was connected to a particular language¹²⁰ belonging to different language families: Mixe-Zoque language

¹¹⁵The category “*scriptura franca*” was put forward by Florentina Badalanova Geller at the conference “Multilingualism, Linguae Francae and the Global History of Religious and Scientific Concept” at The Norwegian Institute at Athens April 3–5, 2009, organized by the Max Planck Institute for the History of Science (MPIWG).

¹¹⁶The recently discovered although not deciphered Cascajal Block found in the Olmec region of Veracruz, Mexico derives from the first millennium BCE. It represents the oldest known system of writing in the Americas, Rodríguez Martínez et al. (2006).

¹¹⁷European missionary linguists created specific North American writing systems, that is, syllabaries for indigenous languages. Western Apache and Cherokee represent exceptions as they were constructed by indigenous people in the (post)colonial period (see below). North American indigenous literacy culture competes with the new dominating lingua franca of English (and to a lesser degree French) and Latin script as a *scriptura franca*. Cf. for bibliographic references Campbell (1997) and Mithun (1999, 34–36).

¹¹⁸More than a dozen graphic systems are recognized in Mesoamerica: Nûiñe of Mixteca Baja, Teotihuacan, Xochicalco, Chalco, Teotenango, Cacaxtla, Tula, Aztec of Central Mexico and the Mixteca Alta (Mixteca-Puebla), Mixtec, Zapotec of Oaxaca (Monte Alban; Mitla), Coztumalhuapa of Highland Guatemala, Epi-Olmec (Isthmian), and Maya, Urcid (2001, 1–4). Some of the many American writing systems are recently presented in Boone and Urton (2011).

¹¹⁹The concept “hieroglyph” is ambiguous. It is a designation for both individual signs and combinations of signs in expressions, like words or compound of words. For example the “hieroglyph” for “to be born” incorporates three signs: **SIY-ya-ja**, Wichmann (2000). A more correct category for the writing system is therefore logosyllabic.

¹²⁰Stuart (2005, 7–8).

family, Maya language family, and Otomanguean language family. Alfonso Lacadena hypothesizes that many of the signs of the Maya syllabary were taken from the Isthmian (aka Epi-Olmec) writing system, most likely written in the unrelated Mixe-Zoque language.¹²¹ Neither the writing of Zapotec nor Isthmian has, however, been deciphered.¹²² Lacadena argues that later Aztecs and Nahua cultures applied a logosyllabic writing system in their manuscripts. He maintains that a group of manuscripts (including the *Codex Santa María Asunción* and the *Memorial de los Indios de Tepetlaxtōc*) represent Nahua writing of the scribes *tlaculioque* of the Tetzcoacan scribal school or *calmecac*.¹²³ What makes the case of the classic Maya unique in Mesoamerica is that they have a nearly fully deciphered corpus with a logosyllabic system of writing.

The Maya system of writing was first decoded in the second half of the 1980s and the 1990s.¹²⁴ As we have seen, the classic Maya inscriptions are written in Ch'oltian a branch of the Ch'olan languages. This is a variant used today by Maya (Ch'orti') of southeastern Guatemala and western Honduras. Linguists and epigraphers have designated this language as "Classical Ch'olan", "Classic Ch'olti'an" or "Classic Lowland Maya."¹²⁵ Houston, Robertson, and Stuart¹²⁶ and Lacadena García-Gallo and Wichmann¹²⁷ have demonstrated that besides a homogenous written language, local languages or dialects existed in different regions of the Classic Lowland area.¹²⁸ The classic Maya writing system was accordingly also multilingual, representing a specific language family because it transcribed various Maya languages: "[...] Classic Ch'oltian (or Classic Mayan, the proposed prestige language), the Classic Ch'olti'an vernacular, Classic Western Ch'olan (Classic Chontal?) and Classic Yucatecan, as well as their descendants Colonial Ch'orti', Colonial Yucatec, and Colonial Itza (and possibly Colonial Chontal [...]). It also includes words from Tzeltal."¹²⁹ These three languages have all affected the written norm. Notwithstanding some paleographic variations and the three linguistic areas there was a system of writing which reflected an integrated Lowland Classic Maya plurilingual culture.¹³⁰ Classic Maya sign inventory was indeed fundamentally unitary.¹³¹ Despite of elements of loanwords from the Maya languages of Yucatec, Tzeltal (and maybe Kekchi) and regional palaeographic diversification, the writings were understandable for the scribes from the various Maya cities.¹³²

Paleographic as well as linguistic (phonological) distinctiveness of the individual city was, however, an identity marker in the logosyllabic writing system of the individual city, according to Søren Wichmann. Maya script has an exceptional phonological transparency. The logosyllabic system allows for various possibilities, which represent different degrees

¹²¹Lacadena (2005; 2010).

¹²²Urcid (2001; 2005); Houston and Coe (2003).

¹²³Lacadena (2008).

¹²⁴Houston, Chinchilla Mazariegos and Stuart (2001).

¹²⁵Houston, Robertson and Stuart (2000); Wichmann (2006b).

¹²⁶Houston, Robertson and Stuart (2000).

¹²⁷Lacadena García-Gallo and Wichmann (2002; 2005).

¹²⁸See also Mora-Marín (2003) and Mora-Marín, Hopkins, and Josserand (2009, 15–28). Cf. Wichmann (2006b) for a synthesis of Mayan historical linguistics and epigraphy.

¹²⁹Lacadena García-Gallo and Wichmann (2002, 313).

¹³⁰Lacadena García-Gallo and Wichmann (2002, 313–314).

¹³¹Grube (1990); Lacadena (1995).

¹³²Lacadena García-Gallo and Wichmann (2002); Wichmann (2000; 2006b). Thus "Just as Mesopotamian syllabic cuneiform in the Near East was used to write not only Akkadian as the prestige written language, but also vernacular Akkadian, Hurrian and Hittite, the Maya hieroglyphic system was used for transcribing several languages [...]," Lacadena García-Gallo and Wichmann (2002, 313).

of phonological specification and individual spellings. Regional linguistic variants are regularly “spelled out” in the orthography of the inscriptions. The alternative spellings of identical words represent a collective awareness of regional and cultural identity through language. Phonology operates therefore in Classic Maya scriptures as an indicator of political identity of the city and city-state. Inscriptions are phonologically transparent in principally small-scale monolingual societies where the scribes set off pronunciations of words from other possible pronunciations by speakers of different dialects or languages. But this was not the case in large centralized polities subsuming many cultural-linguistic groups.¹³³

Situated not far from Tenochtitlan (Mexico City),¹³⁴ Teotihuacan of the early classic period (c. 100–c. 600 CE) was the greatest known multilingual cosmopolitan metropolis (c. 150,000 inhabitants at its peak) of the pre-European Americas. Foreign multilingual inscriptions are also present at Teotihuacan. There are paintings from the apartment compound Tetitla at Teotihuacan, which encompass fragments of phonetic written early classic Mayan inscriptions, with one of them describing deity impersonation. Furthermore, a stone monument from Oaxacan Barrio had Zapotec writing with the calendar date 9 “L.”¹³⁵ Teotihuacan texts¹³⁶ are located at various sites outside Central Mexico.¹³⁷ An interesting case is the “Temple inscription” in Temple 26 (Structure 10L–26) of the classic Maya city, Copan of western Honduras. It displays Teotihuacan symbolic script. Full-figure signs of the inscriptions consist of two separate but parallel texts or fonts: Teotihuacan and Maya. A single text is accordingly “written” in two graphic systems. David Stuart asserts that a restored left section of this inscription reads: Waxaklaju’n U’b’aaj K’awil (name of lord at Copan) ? 9.16.5.0.0 8 Ajaw 8 Suutz’ (April 10, 756 CE). The calendar date alludes to the dedication date of the structure and Stela M, in front of the Hieroglyphic Stairway. The Teotihuacan inscription was apparently to be read first and then translated into Maya. Hence, this is a bilingual text, or biscript, of Mexican (Teotihuacan) pseudo-writing representing no language and Maya writing.¹³⁸ These Teotihuacan examples demonstrate not only the unique semantic relationship between writing and a particular language but in addition that phonetic systems might appear in symbiosis with foreign linguistic cultures.

In 1904 Silas John Edwards constructed a particular “phonetic-semantic” system recording ritual prayers for the Western Apache in east central Arizona. Despite the influence of Christianity, the writing system is based upon signs from Apache tradition but significantly not for traditional Apache invocations or colloquial communication in Western Apache. A few Apache, who live on the Fort Apache and San Carlos reservations, are initiated into the knowledge of the system and employ it today. Although esoteric, the writing systems principles are recognized by US linguist anthropologists. Like the indigenous Cherokee syllabary the writing system of Silas John represents “stimulus diffusion” which created a new graphic-cultural form for native speakers.¹³⁹ Cherokee syllabic writing represents another intriguing example of a contemporary exclusive indigenous writing (i.e. graphic monolingual) system. Cherokee origin is from the southeastern part of what is

¹³³ Wichmann (2006b).

¹³⁴ Teotihuacan is situated c. 40 km northeast of Tenochtitlan (today Mexico City), the capital of the later Aztec Empire.

¹³⁵ Taube (2000, 1; 2004, 273, 285–287).

¹³⁶ Language unknown but probably Nahuatl. Cf. Dakin and Wichmann (2000).

¹³⁷ Cf. Taube (2011).

¹³⁸ Stuart (1998, 29–32; 2000, 495–498); Martin and Grube (2000, 207–208).

¹³⁹ Cf. Basso and Anderson (1973).

today is known as the US. Today numerous Cherokees live in reservations in Oklahoma and North Carolina, but other Cherokee groups who are not federally recognized also reside in the US. The Cherokee comprise three major political entities: the Eastern Band of Cherokees in North Carolina, the Cherokee Nation of Oklahoma, and the United Keetoowah Band in Oklahoma. It is the largest contemporary indigenous nation in the US, with more than 300,000 people. Around 14,000 peoples speak a Cherokee dialect.¹⁴⁰ The Cherokee and non-English speaker Sequoyah (aka George Guest or Gist) invented a syllabary (85 symbols: 5 vowels; 1 *s* sound; 79 syllables), which was developed 1819–1821. It was used to produce a variety of secular and religious texts, which created a high level of literacy among the Cherokee. Today the syllabary is generally used for the purpose of ceremonies, publication of translations of the Bible and bilingual newspapers and periodicals (The Cherokee Phoenix, The Cherokee Messenger, and The Cherokee Advocate) from 1828 onwards.¹⁴¹

18.8 Synthesis of Pictorial-logographic (Scriptura Franca) and Phonetic Writing in Mesoamerica

Numerical notation systems are principally translinguistic non-phonetic whereas lexical numeral systems are phonetic or linguistically determined.¹⁴² These epitomize open as opposed to close (language) systems.¹⁴³ We have seen that for the Mixtec and Mixe lexical numeracy signifies intralingual differentiation and exclusivity. Conversely, in Mesoamerica various numeral-sign systems can function as scriptura franca, that is, translingual. For instance, the bar-and-dot numeral sign-systems (Epi-Olmec/Isthmian, Zapotec, Maya, Teotihuacan, Mixtec-Puebla), however, were known to be used for calculating calendar time. Later, dot-numerals were employed by various linguistic civilizations in Oaxaca, the Gulf Coast and the Valley of Mexico.¹⁴⁴ Scriptura franca is a graphic literacy system not associated with a particular language, operating as a semiotic lingua franca. Scriptura franca represents an open or inclusive vs. a closed or exclusive communication system—the latter pertaining to a specific language, manifested as we saw in different phonetic (writing) systems. This has consequences for communication in multilingual societies and regions.

Civilizations of Central Mexico have a graphic or pictorial-logographic system called “Mixteca-Puebla Horizon Style” or The “Mixteca-Puebla style” (the system has many designations). This is a common graphic and symbolic system, for example, scriptura franca of peoples who spoke different languages (Nahuatl, Otomí, Totonac, Cuicatec, Chocho, Mixtec,¹⁴⁵ Zapotec, Tlapanec etc.) in the postclassical and early colonial period (c. 900–c. 1700 CE) in Mesoamerica. People of various cultures could communicate in writing independent of their different languages.¹⁴⁶ Although a regional variation in terms of graphic conven-

¹⁴⁰King (1996, 95).

¹⁴¹Daniels and Bright (1996); King (1996, 97); Walker (1996, 162–167); Mithun (1999, 34–35); Coulmas (2003, 69–74); Cushman (2011).

¹⁴²Chrisomalis (2010, 3).

¹⁴³Houston (2004).

¹⁴⁴Chrisomalis (2010, 284–300). For a summary of the mathematics and numeral notation and systems in America cf. Closs (1986); Chrisomalis (2010). Numeral systems of the world languages: <https://mpi-lingweb.shh.mpg.de/numeral/>, accessed April 4, 2017.

¹⁴⁵Cf. Jansen and Pérez Jiménez (2010).

¹⁴⁶Boone (2000, 32).

tions, there are analogous iconography, symbols, and logographic signs in manuscripts of the Mixteca-Puebla tradition. This “postclassical international style” may signify a pan-Mesoamerican religious system. It pre-existed but was later promoted by the Aztec Empire.¹⁴⁷ Scholars have classified this graphic system as pictorial-ideographic,¹⁴⁸ as pictorial,¹⁴⁹ or as semasiographic.¹⁵⁰ It encompasses narrative pictures accompanied with logographic signs for names, places, and dates. I therefore prefer the category pictorial-logographic, but the other mentioned categories are helpful in defining the various semiotic meanings and uses. A pictogram (Lat. *pictus*, “painted,” Gr. *-gram*, “something written,” “illustrated”) is a visual representative sign. It depicts a concrete object or an action. The signs may function ideographically or semasiographically (Gr. *semasia*, “meaning,” *-gram*, “something written,” “illustrated”) by providing qualities, attributes, or ideas associated with the depicted object. An illustrated eye may for example be applied as an ideogram (“ideas,” *-grafi*) for the verb, “to see” whereas footprints may represent travel or dancing, and so forth.¹⁵¹ An ideogram can be representative when the iconic sign depicts, by natural association, an element or a part of a meaning. Conventions may decide that the sign has this visual association. Ideograms can consequently symbolize cultural metaphors graphically.¹⁵² A verb is frequently represented by a depicted action. Such a system was ambivalent since a sign could simultaneously have several meanings. A pictorial-logographic system is not phonetic, that is, founded on a particular or defined language. A codified sign system was applied to communicate ideas independent of a particular language. This was an advantage in multilingual Central Mexico. Logograms can, however, contain phonetic elements (rebus). There are some phonetic elements after the rebus principle in this writing system, especially in Aztec but also in some Mixtec place names.¹⁵³ Another factor, which connects the system to a linguistic culture, is that pictograms and ideograms are signs culturally determined by codes or conventions. For example, day and year signs can be distinguished by a different semantic determinative in Mixtec and Aztec manuscripts respectively.¹⁵⁴ Moreover, this was partly a mnemonic principle of conveying traditional knowledge mainly by initiated specialists and accordingly not for intercultural communication. The “Mixteca-Puebla style” embodies therefore independent graphic systems for a cultural and linguistic identity of the individual city and state.

According to David Charles Wright Carr, calques represent concepts of scriptura franca in these pictorial-logographic manuscripts, because the various languages of Central Mexico—Nahuatl, Mixtec, and Otomí—employed the same signs to express the same concepts. But each linguistic culture group could employ homophonic words in order to construct glotographs or logograms (morphemes and phonographs).¹⁵⁵ For instance, the lexical entries for “writing” in Mixtec (*tacu*), Nahuatl (*tlacuilo*), Maya (*tz’ihib’*) and Zapotec (*tozeea*) are synonyms of semantically derivative terms from the word for painting and sculpturing.¹⁵⁶

¹⁴⁷Cf. Boone and Smith (2003).

¹⁴⁸Dibble (1971, 324).

¹⁴⁹Prem (1992, 54).

¹⁵⁰Boone (2000, 30–31).

¹⁵¹Dibble (1971, 324).

¹⁵²Boone (2000, 30–35).

¹⁵³Boone (2000, 35–38); Dibble (1971, 324, 326).

¹⁵⁴Nicholson (1966); Umberger (1981a; 1981b); Boone 2000, 41–42).

¹⁵⁵Wright Carr (2008).

¹⁵⁶Urcid (2001, 4).

Moreover in the *Codex Telleriano-Remensis* a Nahua scribe writes bilingual signs for “day” in Maya (*k'in*) and Nahuatl (*ilhuitl*). The same signs can be found on 56a in the postclassical Maya *Codex Dresden*.¹⁵⁷

Cartographic manuscripts from the Cuauhtinchan archive (1525–1565 CE) produced by indigenous peoples of the Altepetl (city) of Cuauhtinchan in Puebla, Mexico exemplify that a scriptura franca were employed by different linguistic cultures within a community.¹⁵⁸ The recently rediscovered *Mapa de Cuauhtinchan no. 2* (MC2) were made shortly after the Spanish invasion.¹⁵⁹ The pictorial and graphic system of the map outline names, places (space), and calendar dates (time) with logosyllabic signs. Cuauhtinchan was a multilingual city dominated by Pinome or Chocho (Mixtec-Popolloca) and Nahua of the Otomanguan and Uto-Aztec language families respectively.¹⁶⁰ It was, however, written for both linguistic groups.¹⁶¹ This intersemiotic cartographic document constitutes a scriptura franca with mainly Nahua (Aztec) but also Mixtec and partly European (three place names are written in Nahuatl in the Latin alphabet) semiotic conventions.¹⁶² The early colonial multilingual literate Mixtec and Chocholtec notaries of the Tocij Nudzavui region used calendrical names, calendar dates, and place names interchangeably in different languages—whether Mixtec, Chocholtec, or Nahuatl—in bilingual and trilingual documents.¹⁶³ The non-translation of these calendrical names, calendar dates, and place names by indigenous polyglots contribute to explain the existence of a common Mesoamerican semantic and linguistic epistemology, a general scriptura franca conventional code, in the pre-European and early-colonial logosyllabic-pictorials like MC2 and other indigenous manuscripts of the postclassical and early-colonial periods. Moreover according to Terraciano, there were Mesoamerican “interlingual puns” expressing graphically semantic conventions involving body parts to outline location and other meanings unrelated to the body.¹⁶⁴

In the pre-European period there were regional scribal schools among the Nahua and the Maya, with a phonetic and a non-phonetic emphasis respectively.¹⁶⁵ This signifies that synchronically, language was important for the scribes of the “phonetic school” whereas it did not play a significant role for scribes of the “non-phonetic school.” In most cases graphic communication systems diachronically “evolve.” But when a graphic system becomes more attached to a specific language (i.e. phonetic) should not to be seen as a progressive cultural-linguistic evolution. Maya logosyllabic writing gradually turned out to be more syllabic (phonetic), in particular in certain regions.¹⁶⁶ The graphic system of the Zapotec of Oaxaca, Mexico represents a different development. After the loss of Zapotec political power throughout the collapse of Monte Alban, its logosyllabic system was from the thirteenth century replaced by the predominately non-phonetic Mixteca-Puebla style. In the later part

¹⁵⁷Macri (2010, 207–209, figs. 15 and 16).

¹⁵⁸These are *Mapas de Cuauhtinchan* 1, 2, 3, and 4 and *Mapa pintado en papel europeo y aforrado en el indiano. Historia Tolteca-Chichimeca* written in Nahuatl (alphabet) and pictorial-logographic script has been a “Rosetta Stone” in the explication of these manuscripts, Kirchhoff et al. (1976).

¹⁵⁹Cf. Carrasco and Sessions (2007).

¹⁶⁰In the story related in MC2 the bilingual Coatzin is described as a linguistic mediator and interpreter between the Toltecs and the Chichimecs.

¹⁶¹Ruiz Medrano (2007, 92–94); Wake (2007, 208).

¹⁶²Boone (2007b, 29); Yoneda (2007, 186); Wake (2007, 209–211).

¹⁶³Swanton (2008, 354–356).

¹⁶⁴Cf. Terraciano (2015).

¹⁶⁵Lacadena (2008).

¹⁶⁶Wichmann (2006b).

of sixteenth century, however, European alphabetic script was appropriated for use of the Zapotec language (c. 1550AD – c. 1750),¹⁶⁷ which also was the case for other Indigenous Latin American languages.

18.9 Scriptura Francas of North America and South America

Intercommunication in multilingual cultural regions of pre-European America required a spoken common language, *lingua franca*, but other non-oral strategies could be used between different linguistic entities. Khipu of South America and wampum and sign languages of North America appear to have represented *scriptura francas* serving as general media for various regional linguistic cultures.

Khipu (pl. *khipukana*)—from Quechua or *chinu* from Aymara (pl. *chinunaka*), which both signify “knot”—constitutes a quite complicated system. It apparently represents a combination of dyed knotted strings where form, ply, structure, color, direction, placement, and number are significant for communication.¹⁶⁸ This system—which may have a binary codified, mnemonic, or phonetic (i.e. writing) function—is, however, not deciphered. Frank Salomon¹⁶⁹ has summarized three theoretical positions for the principles of khipu: a Quechua syllabography or phonography;¹⁷⁰ a semasiographic system; a neutral binary code.¹⁷¹ Leland Locke¹⁷² decoded the decimal arithmetic code of khipu¹⁷³ and recently Sabine Hyland, Gene A. Ware, and Madison Clark have corroborated the hypothesis by Gary Urton¹⁷⁴ that khipu semantically (not phonetically) conveys affiliation to moiety.¹⁷⁵ It is likely that Inka and other linguistic groups of the Andes of South America used khipu in order to record and convey a variety of interrelated accounts (narratives) and transference of quantitative (mathematical) information: calendars, censuses, tribute records, royal deeds, inventories, genealogies, ritual records, and so forth.¹⁷⁶ It might well have functioned as a *scriptura franca* in the multilingual Andes region and for the Inka Empire. Khipu was not reserved for the elite since thousands of people were probably competent in its use in the Inka Empire.¹⁷⁷ Furthermore, there is no reason to assume that khipu were only employed as individual mnemonics.¹⁷⁸ Archaeology and anthropology have demonstrated that the fiber-based media in the Andes known as khipu was used a long time before the Inka Empire. Speakers of languages other than Quechua also practiced it more than 400 years after its demise. Perhaps it was for that reason not connected to a specific language¹⁷⁹ but represented a *scriptura franca*. Extant Andean khipus indicate a typology of at least three categories of khipu according to Gary Urton and Carrie Brezine. These are the Wari khipu (600–1000 CE), Canuto (e.g. tube) khipu and Inka khipu (1400–1552 CE), where the latter have far more existing

¹⁶⁷Urcid (2001, 4; 2005, 5–9).

¹⁶⁸Urton (2002; 2008); Hyland (2014).

¹⁶⁹Salomon (2008, 286–287).

¹⁷⁰Sabine Hyland maintains that khipu have a logossyllabic principle (2017). Cf. below.

¹⁷¹Cf. also Quilter and Urton (2002).

¹⁷²Locke (1923; 1928).

¹⁷³Salomon (2008, 286).

¹⁷⁴Urton (2003).

¹⁷⁵Hyland et al. (2014). Cultures in Mesoamerica used a vigesimal system.

¹⁷⁶Urton (2009, 823–824, note 10).

¹⁷⁷Salomon (2008, 288). Cf. also Salomon and Niño-Murcia (2011, 71–79).

¹⁷⁸Urton (2003, 15–26); Salomon (2008, 286).

¹⁷⁹Salomon (2008, 285). For khipu used today cf. Salomon (2008) and Salomon et al. (2011).

samples. There are differences but also basic similarities between these khipus.¹⁸⁰ Urton and Brezine tentatively support a *scriptura franca* hypothesis of shared principles independent of languages in the multilingual Inka empire in part because: “[...] Inka administrative record keeping was based on a shared recording tradition among record keepers operating at different levels in the empire, from local communities to state accounting institutions.”¹⁸¹ Moreover, they conclude that different functional types of khipus of various local and styles and regional traditions appear to have equivalent “standardized formatting principles.”¹⁸² But according to a highly interesting report, Sabine Hyland have found two eighteenth century khipus in the village of San Juan de Collata of Huarochiri in Peru. Hyland hypothesises a conceivable logosyllabic principle for these khipus, used as epistles according to local informants, written in Quechua.¹⁸³ This implies that they do not follow a *scriptura franca* principle. As Hyland recognizes, however, alphabetic writing could well have exercised influence upon post-European khipus,¹⁸⁴ which may signify that the pre-European khipu might have followed a different (non-phonetic) principle. If that was the case, the khipu exhibit a development from a non-phonetic to a phonetic system. Future research from Hyland and her colleagues will hopefully reveal the genuine nature of the principle(s) of the pre-European and post-European khipu.

The sign systems among native peoples of North America¹⁸⁵ did not contain logosyllabic inscriptions (phonetic), as in Mesoamerica, but logograms or petroglyphs (stone). Therefore, they were iconic, and had a mnemonic function not related to a specific language. The Kiowa, Lakota, Mandan, Hidatsa, Cheyenne, Praise Apache, Blackfeet had a pictorial-logographic calendar historiography. Community historians, known as season count keepers, maintained and used these pictographic records as mnemonic devices to remember the sequence of events that marked each year or season. As some Lakota people learned to write their own language in the nineteenth century, a few keepers began to add written words to the pictures, and eventually some winter counts consisted entirely of written year names.¹⁸⁶ European missionary linguists later constructed North American logographic systems for the translation of scriptures.¹⁸⁷

Conventionalized sign language of the Gulf Coastal Plain as far north as British Columbia, Alberta, Saskatchewan, and Manitoba of North America, also known as Plains Sign Talk (PST), was used for interlinguistic communication between nations where some even speak languages of different language families. PST had regional variations but it was a *lingua (scriptura) franca* which has survived to a limited extent among elders. English replaced PST as *lingua franca* in North America. It was invented before the European arrival, probably at the Gulf Coast, where it later dissipated and was first used by the Kiowa-Tanoan of the Great Plains. Nomadic groups were the foremost operators of PST.

¹⁸⁰Urton and Brezine (2011, 321–325).

¹⁸¹Urton and Brezine (2011, 328).

¹⁸²Urton and Brezine (2011, 344–345). Hyland (2014) argues that the ply directional technique was semiotic and not phonetic.

¹⁸³Hyland (2017).

¹⁸⁴Hyland (2017).

¹⁸⁵In annual reports and bulletins and other series, the Bureau of American Ethnology documents linguistics, religions, history, and traditions of indigenous peoples of the nineteenth century and the twentieth century in North America. John Wesley Powell established the Bureau of Ethnology in 1879, renamed the Bureau of American Ethnology from 1897.

¹⁸⁶Mooney (1992 [1897]); Greene and Thornton (2007); Greene (2009).

¹⁸⁷Taylor (1996, 283–287, 289).

It was practiced in rituals between different nations, in conversations and in storytelling, including among speakers of the same language. PST constitutes a particular syntax and grammar.¹⁸⁸ It can, moreover, be employed with or without speech. With speech PST may provide the same or different information. There are dialect differences but with no problem for communication. Furthermore, there is iconicity but also cultural knowledge necessary to master the system.¹⁸⁹ A report from the five missions of the Colegio, de la Santa Cruz in Texas makes this observation of PST as *lingua/scriptura franca*:

Although there are many languages in these five missions, [...] the language of making signs alone is universal in all the nations, making long orations for any purpose, as if it were just any other language that is spoken.¹⁹⁰

How the principles of a regional North American pictorial-logographic system are associated with the principles of PST can be exemplified by the following story: after the great Civil War, a charter member of the Ethnological Society of Great Britain, Dr. William A. Bell, gives an eyewitness account in his book, *New Tracks in North America: A Journal of Travel and Adventure whilst engaged in the survey for a southern railroad to the pacific ocean during 1867–8*, a quite peculiar event involving the Cheyenne, Arapaho, and Sioux (Lakota) involving three unrelated languages that took place in 1867.¹⁹¹

Dr. Bell was the photographer of a survey expedition organized by the Kansas Pacific Railway Company (KPRC) with the purpose of finding the best course for a southern railway to the Pacific coast. The problem, from the perspective of KPRC, was the encounter with so-called “hostile” indigenous nations on the way. His sojourn in the Far West entailed a remarkable incident on June 26, 1867, near Fort Wallace in western Kansas.¹⁹² A party of soldiers was attacked by a war party led by the famous Cheyenne war-chief Roman-nose. Seven soldiers were killed and five were wounded. This attack was most likely a retaliation for the infamous massacre of the peaceful Cheyenne village at Sand Creek, around 100 miles southeast of Denver about three years before. On November 29, 1864, a state militia of Colorado Volunteers headed by the former Methodist minister Colonel J. M. Chivington mutilated and scalped men, women, and children of the Cheyenne and Arapaho. In all, seventy people were murdered.¹⁹³ During another attack near Fort Wallace in 1867, Sergeant Frederic Wylyams—an Englishman educated at Eton and later disowned by his bourgeois family who subsequently immigrated to America—encountered a quite remarkable fate. Wylyams was found lying dead with his horse, and both horse and man had been stripped of their clothes and trappings.¹⁹⁴

A portion of the sergeant’s scalp lay near him, but the greater part was gone; through his head a rifle-ball had passed, and a blow from the tomahawk had laid his brain open above his left eye; the nose was slit up, and his throat was cut from ear to ear; seven arrows were standing in different parts of his naked

¹⁸⁸Cf. Clark (1982 [1885]); Mallery (1880; 1881); West (1960).

¹⁸⁹See Mithun (1999, 292–294); Campbell (1997, 10); Wurtzburg and Campbell (1995); Taylor (1996).

¹⁹⁰Mithun (1999, 292–293); Wurtzburg and Campbell (1995, 160).

¹⁹¹Taylor (1975, 90–93; 1991, 78–81).

¹⁹²Bell (1965 [1869], 60–65).

¹⁹³Taylor (1975, 90; 1991, 78–79).

¹⁹⁴Bell (1965 [1869], 62).

body; the breast was laid open, so as to expose the heart; and the arm, that had doubtless done its work against the red-skins, was hacked to the bone; his legs, from the hip to the knee, lay open with horrible gashes, and from the knee to the foot they had cut the flesh with their knives. Thus mutilated Wylyams lay beside the mangled horse.¹⁹⁵

By analyzing the body of Sergeant Wylyams,¹⁹⁶ Bell was able to acknowledge “some meaning in the wounds”:

The muscles of the right arm, hacked to the bone, speak of the Cheyennes, or “Cut arms;” the nose slit denotes the “Smeller tribe,” or Arapahoes; and the throat cut bear witness that the Sioux were also present.¹⁹⁷

A union of nations of the southern plains had united their forces against the European invaders. They had different signs of which the individual nation was recognized:

The sign of the *Cheyenne*, or “Cut arm,” is made in peace by drawing the hand across the arm, to imitate cutting it with a knife; that of the *Arapahoe*, or “Smeller tribe,” by seizing the nose with the thumb and fore-finger; of the *Sioux*, or “Cut-throat,” by drawing the hand across the throat. The *Comanche*, or “Snake Indian,” waves his hand and arm, in imitation of the crawling of a snake; the *Crow* imitates with his hands the flapping of wings; the *Pawnee*, or “Wolf Indian,” places two fingers erect on each side of his head, to represent pointed ears; the *Blackfoot* touches the heel, and then the toe, of the right foot; and the *Kiowa*’s most usual sign is to imitate the act of drinking.¹⁹⁸

Consequently, there is semiotic evidence that warriors of the Cheyennes, Arapahoes, and the Sioux partook in the battle. Bell admits that he did not find, “what tribe was indicated by the incisions down the thighs, and the laceration of the calves of the legs, in oblique parallel gashes. The arrows also varied in make and colour, according to the tribe; and it was evident, from the number of different devices, that warriors from several tribes had each purposely left one in the dead man’s body.”¹⁹⁹

How can these symbols or signs be deciphered? I put forward the theory that the wounds on the Sergeant’s body represent the sophisticated sign language of Plain Indians—which the Cheyennes, Arapahoes (both Algonquian language family), and the Sioux (Siouan language family) practiced—transferred into graphic signs, in this case on a human body.

Many different languages were spoken on the Great Plains. Thus the PST sign language functioned as a *lingua (scriptura) franca*. Captain William Clark employed sign language during his field research in the 1870s. Later he wrote the book *The Indian Sign Language*.²⁰⁰

¹⁹⁵Bell (1965 [1869], 62–63).

¹⁹⁶Cf. drawing on p. 64 in Bell (1965 [1869]).

¹⁹⁷Bell (1965 [1869], 63).

¹⁹⁸Bell (1965 [1869], 63).

¹⁹⁹Bell (1965 [1869], 63). An intriguing feature, not mentioned by Bell, is that a quite large tattoo was removed from the Sergeant’s chest. The tattoo was recaptured from the Cheyennes sometime later. Photographs of the deceased Sergeant and of his chest skin scalp showing the tattoo are located in the archives of the Smithsonian, Taylor (1975, 91).

²⁰⁰Cf. Clark (1982 [1885]).

Despite the fact that the regional differences of the signed vocabulary implied dialect variations, the sign talkers had no problems communicating. The PST sign language can be categorized as logographic. Manual gestures (signs) vs. vocal gestures (speech) comprise abstract sound combinations of a spoken language (arbitrary signs). The sign language comprises iconic signs (the signs look like the objects and actions that they refer to) and indexical signs (grammaticalized-pointing gestures).²⁰¹ But this does not necessarily make it a universal language because sign language is also culturally determined. It was, however, applied interlinguistically and within the same nation, mainly for storytelling and public speech. The system is in use among certain nations today where there is a revival of interest. This is manifested by its incorporation into language-maintenance programs.²⁰²

As semiotic technology for indigenous nations of the northeastern part of North America, Wampum could be used as *scriptura franca* in intercommunication between peoples of different languages. Wampum is a denomination for small white or dark violet cylindrical marine-shell beads. The word “wampum” etymologically derives from the eastern part of the Algonquian language family but it has different appellations in various indigenous languages. It is produced on the Northeastern coast of North America, in particular by Algonquian nations in the eastern part of Long Island and the coast of Connecticut and Rhode Island.²⁰³ Wampum is sometimes strung together into belts or into strings used in rituals for condolence or affirming kinship.²⁰⁴ The most extensive application of wampum belts was by the original Five Nations Haudenosaunee (aka Iroquois) Confederacy and the Huron Confederacy. A more limited use of belts is documented in New England and among the Mikmak, but very rarely to the south among the Lenape and their neighbors in the Delaware Valley and beyond. Wampum has many functions and was therefore practiced in different manners.²⁰⁵ What concerns us here is the intercultural and interlinguistic function of wampum for diplomatic and political purposes. Several wampums were exchanged between various groups, and as we shall see, including Europeans, to substantiate verbal agreements. For the Haudenosaunee the ritual meanings of wampum were the reason why wampum was applied in intercultural relations. During ceremonies, the use of wampum strings indicates that the speaker’s words are true.²⁰⁶

Wampum belts were quite commonly used in native diplomacy as presentation pieces and also as mnemonic devices. Belts become essential for making and accepting, or rejecting, requests at treaties. One of the uses of wampum strings is to invite the other nations to meetings. At the end of the wampum string is a wooden stick. The wooden stick tells the people of the nation when the meeting is to take place. As each day passes, a notch is cut off the stick and when the notches are gone, the meeting will take place. Logograms or other pictorial signs could be engraved in the wampum belt. The colors had a particular

²⁰¹ Sign language can also accompany speech.

²⁰² Farnell (1996, 589–590).

²⁰³ Hamell (1996, 662).

²⁰⁴ Hamell (1996, 663).

²⁰⁵ Dutch traders used wampum as money from the beginning of the seventeenth century. This was never its function among indigenous peoples. Wampum became a currency in New England, New York, New Jersey, Pennsylvania, and Virginia. In West New Jersey wampum was the main currency up to 1682. Until 1693 passengers on the ferry between New York and Brooklyn could pay for their ticket with wampum. The last known exchange of wampum as payment was a transaction in New York in 1701, but as late as 1875, Germans in Bergen, New Jersey employed wampum in trade with indigenous peoples, Hewitt (1910, 905–909).

²⁰⁶ Arnold (2011, 5). For a description of various extant wampum belts of the Haudenosaunee, cf. Tehanetorens (1999).

symbolic communicative significance. The symbolism of the two colors in combination or alone, sequences, patterns, and figures on the strings or belts served to transmit and preserve information and traditional epistemology. The meanings in the designs can become very complicated, for example a belt may have white designs on a purple background but be surrounded by a white border, indicating a relationship that was once hostile is now peaceful. White pearls colored red were used as a declaration of war or to invite allies to participate in war. The Haudenosaunee used black pearl wampum-belts to let other nations know that one of their chiefs were dead. Some belts were employed to give a double message, that is, one part to a person and the other to another person or two messages to an individual or to the single nation or confederacy.²⁰⁷ Chiefs, elders, or specially appointed men appeared in meetings as annalists to remember the principles of this semiotic system. In particularly complex and important matters, chosen individuals were commissioned to memorize a part of this long and complicated message. Early European observers' reports that a person who kept a wampum-belt could repeat every word of a long and important convention several years after it was agreed.²⁰⁸

18.10 Translation, Multilingualism and *Lingua (Scriptura) Franca*

The technology in transference and exchange of knowledge and ideas between different cognitive and linguistic systems in translation is highly significant in the explication of multilingualism and *lingua franca* as intellectual phenomena. Translations between *lingua franca* and local languages were part of the history of linguistic interaction in the Americas long before the European arrival. Since the early sixteenth century, social, judicial, economical, religious, philosophical, and political concepts and terminologies from Indo-European *lingua franca* and languages became translated into many indigenous languages and *lingua francas* of the Americas. The multilingual translation endeavor of Christian missionary linguists has been ongoing for about 500 years in the Americas. Because it constitutes the most extensive corpus and represents some of the first documented examples of translation into indigenous languages executed after the arrival of the Europeans to the Americas, I will mainly review European ethnographer missionary and missionary linguistic practices of translating scriptures into intersemiotic and alphabetic script respectively. Despite differences between the many languages (language stocks and language families) of the Americas, we must make a distinction between translations between these languages and translations from Indo-European languages and semiotics into the languages of the Americas. This applies not only to the different grammars of the linguistic systems but also cultures, religions, and philosophies, which are expressed by idiomatic language categories and concepts. The Europeans applied various semiotic and linguistic strategies to the American cultures. But as we have seen in the cases of the innovative Apache and Cherokee writing systems by Apache and Cherokees and as we shall see the Military Code Talkers of various North American nations, indigenous peoples also developed new semiotic strategies in translating and producing meaning.

²⁰⁷ Arnold (2011, 6); Hewitt (1910, 907–908).

²⁰⁸ Hewitt (1910, 908). Wampum is featured in the story of the founding of the Great Binding Law of Peace, which is the beginning of the Confederacy of the Iroquois, or the Haudenosaunee, which is composed of the Seneca, Tuscarora, Cayuga, Onondaga, Oneida, and Mohawk. See Arnold (2011, 3).

18.11 Intersemiotic Translations

From the beginning of the sixteenth century, Catholic missionaries almost immediately followed the European military invasion and initiated religious-linguistic and -semiotic campaigns against indigenous cultures. The missionary linguist applied various linguistic and semiotic strategies. They imposed Indo-European lingua franca and translated indigenous languages, in particular lingua franca of the region, into alphabetic script but they also constructed transcultural intersemiotic systems transmediated towards different indigenous language groups, accordingly representing an innovative form of scriptura franca.

In particular in Mesoamerica and the Andean region of South America—where the Europeans encountered numerous city-states and empires with sophisticated semiotic- and writing systems—missionaries, together with selected (converted) indigenous individuals, constructed various translated intersemiotic pictorial-logographic catechisms and confessionals based upon indigenous and European semiotic, symbolic, and iconographic conventions. European graphic codes were also introduced into indigenous manuscripts, where not only alphabetic script but also new graphemes were employed. Semantic elements of concepts and expressions came from both European and indigenous American pictorial-logography. But because of regional variation, there were not three graphic stages equivalent to what James Lockhart has linguistically categorized for Nahuatl in relation to Spanish in the early colonial period.²⁰⁹

Missionary linguists were imaginative in transmitting evangelization of conversion through indigenous communication (semiotic) systems and languages. Colonial pictorial-logographic catechisms and confessionals could be written using the indigenous semiotic system with European iconic conventions. This was not only in order to transmit theological principles in a manner receptive to the indigenous peoples, but also because many of them did not master the indigenous language.²¹⁰ Indigenous iconic images (often logosyllabic, or rebus, writing but also “semasiographic mnemonic”) and European symbols were sometimes, but not always, accompanied by Latin alphabetic script in an indigenous language. Pictorial-logographic catechisms, some accompanied by alphabetic script in an Indigenous language, by the so-called “Testerian manuscripts”,²¹¹ after the Franciscan Jacobo de Testera (1490?–1554), were made in Mesoamerica from the sixteenth through the nineteenth centuries and produced by both indigenous peoples and missionaries.²¹² Burkhart asserts that pictorial catechisms of New Spain were composed by native peoples in the seventeenth and eighteenth centuries.²¹³ These catechisms were to be “read” in a line-by-line, word(s)-for-image manner.”²¹⁴ The particular code, context, and language, however, had to be known in order to be able to read the pictorial catechisms, so this colonial manuscript tradition represents a hybrid (intersemiotic) combination of non-European indigenous pictorial-logographic and European catechistical systems. Iconic images were employed with the purpose of conveying Christian theology and practices in order to convert Indigenous peoples. For instance, The Lord’s Prayer is depicted with the use of Nahua principles of logosyllabic (rebus)writing in a Testerian seventeenth-century manuscript. But also Nahuatl text

²⁰⁹Lockhart (1992, 261–325). Cf. Boone (2011, 205–219).

²¹⁰Ricard (1966, 104).

²¹¹But cf. Burkhart (2014, 186–187, note 58).

²¹²Edgerton (2001, 28–30); Glass (1975); Galarza and Bequelin (1992).

²¹³Burkhart (2014).

²¹⁴Burkhart (2014, 186).

written in the Latin alphabet is included.²¹⁵ Forty-two manuscripts are extant containing Roman Catholic doctrine including Our Father, Hail Mary, Salve Regina, Apostles' Creed, Ten Commandments, Seven Deadly Sins and Church sacraments. Each pictorial element represents a word or a phrase creating a visual syntax. Some images are phonetic whereas others are iconographic signs. There are abstracted and abbreviated images, not mimetic references. For instance, the letters D and A represent the concepts Dios/Deus and Amen in Libro de Oraciones. In addition there can be some alphabetic glosses in Spanish, Nahuatl, Mazahua and Otomí.²¹⁶

Pictorial Roman Catholic catechisms for conversion were constructed for Quechua and Aymara speakers from the Lake Titicaca region of Bolivia and Peru in the Andes as late as in the nineteenth and early twentieth centuries. Andean religious practices influenced by European Catholic Christianity is communicated. Most of the Andean pictorial catechisms are, as is the case with the Testerian, written in boustrophedon, although there is no iconographic relation to the Mexican Testerian tradition. Neither is the visual language of these two traditions associated with the ledger art tradition of the nineteenth-century North American Plains Indians or the Cunas of Panama.²¹⁷ Intriguingly the pictographs follow the syntax of Quechua and Aymara. They convey concepts by using natural and abstract signs. Ideas are also transmitted with phonetic rebus signs (homonyms) rendered in either Aymara or Quechua. But the majority of signs are semantic or semasiographs (ideographs). This category of iconic or symbolic sign is not related to a particular language. There are many local traditions where signs are idiosyncratic for individual use. Some catechisms also include alphabetic script. These catechisms can therefore be classified as "semasiographic mnemonic" in the local systems of communication rather than glottographic connected to a specific language.²¹⁸

Khipu was employed as confessionals and catechisms by Spanish Catholic missionaries (Jesuit and Mercedarian) but also as registers realizing ceremonial duties for festivals of the community.²¹⁹ According to the Jesuit José de Acosta in 1590, confessional khipus (confessional manuals) were also used as catechisms by elders in order to record sins, particularly among women. Lay specialists record confessions on khipus into the early seventeenth century. The Roman Catholic calendar was recorded on khipus according to the Mercedarian Martín de Murúa. Furthermore, "khipu boards" were probably developed by Spanish clerics.²²⁰ This suggests moreover that khipu was a *scriptura franca*, able to communicate theology from Spanish (Latin) to speakers of languages of the Andes. Khipu were also transcribed, translated, and recorded in the early colonial period for administration archives.²²¹ The Spanish vice royalty converted the Inka tribute system into European languages based upon khipus for accounting. They were also presented to the Spanish royal colonial courts and in gathering information in inspection visits (*visitas*).²²² Additionally, the Spanish used

²¹⁵Edgerton (2001, 28–30).

²¹⁶Leibsohn (2001, 214–215); Burkhart (2014).

²¹⁷Mitchell and Jaye (2008, 265, 267). Cf. also Hartmann (1991); Ibarra Grasso (1948; 1953); Mitchell and Jaye (1996).

²¹⁸Mitchell and Jaye (2008, 266–267).

²¹⁹Cf. Hyland et al. (2014).

²²⁰Acosta (2002 [1590]). Cf. Urton (2009, 824–827); Salomon (2008, 295–296); Harrison (1992; 2002; 2008; 2014); Hyland et al. (2014). Cf. also <http://sabinehyland.com>, accessed April 4, 2017.

²²¹Urton (2009, 823–824, note 10); Pärssinen and Kiviharju (2004; 2010).

²²²Brokaw (2010, 137–139).

kipu masters (*kipukamayo*) in economic (accounting and tribute census), demographic census, registries, in judicial and political affairs among the Quechua and Aymara speaking people from the 1570s, in co-existence with Latin script and European numeracy.²²³ Andeans also applied khipus to bookkeeping information for litigation in Spanish courts.²²⁴ There was accordingly a semiotic co-existence of khipu together with Castilian and Latin literacy in the colonial period. It was used until the late eighteenth century in local (vernacular) indigenous administration, some places even later recording communal work and non-Christian rituals by the khipu-alphabetic objects or “khipu-boards.”²²⁵

Wampum was employed by Jesuits in the Catholic mission among Northeastern American Indigenous cultures in the eighteenth century. Wampum-belts, strings, and pearls could be displayed in churches. Latin inscriptions on wampum were engraved as dedications to the Virgin Mary. The Vatican wampum belt is 15 rows of beads wide and over two meters long. This particular wampum represents an important agreement between Grand Chief Membertou and the Mikmak districts and the Roman Catholic Church, represented by missionaries. The first known examples of religious belts date from the 1650s. The last known example is the Vatican belt that was made at the Lac des Deux Montagnes missionary community in 1831 near Montreal, Canada, and sent as a gift to Pope Gregory XVI in Rome.²²⁶ Thus, colonial European and American governments and missionaries, and not only various indigenous nations, employed wampum in intersemiotic communication in this manner transcending language.

Wampum was also applied for interlinguistic communication with Europeans in politics and diplomacy. Treaties between the Haudenosaunee-Confederacy (aka Six Nations) and Europeans and European Americans were often confirmed with wampum belts. The Two Row Wampum treaty between the Haudenosaunee and Dutch colonists was the first treaty made by the Haudenosaunee Confederacy with European settlers. The Two Row Wampum dates to 1613 and documents a meeting between Dutch merchants and the Haudenosaunee, which symbolizes the conditions by which both groups could peacefully occupy the land together. Each of the two rows represents nations whose paths are parallel but do not intersect or interfere with one another.²²⁷ In 1776 a treaty was established with the Haudenosaunee-Confederacy at Fort Pitt with the purpose of keeping them outside the Revolutionary War. John Hancock commissioned a wampum belt for this occasion symbolizing the “13 fires” of the United States.²²⁸ The longest and most famous wampum is the 1794 Canandaigua Treaty belt. President George Washington commissioned this belt made to commemorate the ratification of the Treaty at Canandaigua or Canandaigua Treaty or the Pickering Treaty signed in Canandaigua, New York, on November 11, 1794.²²⁹ The belt is 6 feet long and composed of thirteen figures holding hands connected to two figures and a house. The 13 figures represent the 13 States of the recently established United States of America. The two

²²³Salomon (2004, 199; 2008, 290–292); Porras (1999).

²²⁴Murra (1998, 55).

²²⁵Salomon (2008, 286–287, 292, 297, 299–300). Khipu are kept in some villages today but only as community symbols. They are applied in corporate kin groups (*ayllu*). There is no evidence of people able to read or produce khipus after the mid-twentieth century: Mackey (1970; 2002); Salomon (2002; 2004; 2008, 292, 296–302); Salomonetal (2011).

²²⁶Hamell (1996, 664).

²²⁷Arnold (2011, 11–12).

²²⁸Arnold (2011, 14).

²²⁹Cf. Arnold (2011); Jemison and Schein (2000).

figures and the house symbolize the Haudenosaunee. It is quite remarkable that President Washington elected to utilize the medium of wampum as a multilingual (*scriptura franca*) diplomatic instrument in order to commemorate this event and to confirm the treaty with the Haudenosaunee.²³⁰

Wampum is not the only device that has been intersemiotically employed for non-doctrinal translations. Military intelligence has been translated through a cryptic code developed and practiced by bilingual North American indigenous Code Talkers from various linguistic cultures: Cherokee, Choctaw, Hopi, Lakota, Meskwaik, Comanche, and Navajo. It was used by the US Marine Corps in the First World War, and also in the Second World War when it was used to transmit encrypted messages. The army of Bolivia employed Chiquitano/Chiquito as a secret code or cypher language in the Chaco War between Bolivia and Paraguay.²³¹ The enemy never decrypted codes from North-American indigenous languages. The Navajo in particular were employed as Code Talkers until the Vietnam War. There was a principle of substitution where indigenous metaphors outlined military terminology. But more importantly, code translations of Navajo words representing letters in the English language made this an intersemiotic multilingual telephone and radio communication system.²³²

18.12 Ethnographer Missionary and Missionary Linguistic Translations into Alphabetic Script

As one of their principal missionary strategies, Catholic and Protestant missionary linguists applied translation, through a developed alphabetic literacy, in order to accommodate non-Indo-European languages of various religious scriptures into indigenous languages. Through translation they did not intend to create a general sacred *lingua franca*, but rather a common sacred vocabulary achieved by translating scripture into the vernacular. In addition, missionary linguists produced dictionaries and grammars of indigenous languages, whereas ethnographer missionaries made systematic descriptions of the languages, history, and cultures of the Americas in order to ease conversion.

An unsurpassed work, written by an ethnographer missionary in America, is Fray Bernardino de Sahagun's (c. 1499–1589) encyclopedia known as *The Florentine Codex*.²³³ The book, entitled *Historia General de las Cosas de Nueva España* (The General Story About the Things in New Spain) was transcribed in Mexico City c. 1578–1580.²³⁴ The Franciscan friar Sahagun evangelized the Catholic gospel while collecting information about the language, culture, and religion of the Nahuatl. He translated sacred scriptures, homilies, sermons, and books of songs and prayers in Nahuatl as aids for preaching.²³⁵ In 1559, a provincial of the Franciscans in Mexico, Francisco de Toral, had ordered Sahagun “to write in the *Mexican language* all that which seems useful for the indoctrination,

²³⁰Arnold (2011, 1).

²³¹Adelaar et al. (2007, 478, 609).

²³²Cf. Aaseng (1992); Durrett (2009); Meadows (2002); Robinson (2011).

²³³*The Florentine Codex* is named after the manuscript's (Ms. 218–220, Col. Palatina) present place of residence, the Biblioteca Medicea Laurenziana of Florence, Italy.

²³⁴An earlier work than *The Florentine Codex* is *Primeros Memoriales* (a name given to it later by Francisco Paso y Troncoso) (1558–1560), Sahagun (1997 [1560], 3–4). This manuscript incorporates chapters about the rituals and gods, the heavens and the underworld, and government and human affairs.

²³⁵Olver and Cline (1974, 188).

culture, and religious conversion to Christianity among the natives of New Spain, to aid the workers and missionaries toward their indoctrination.”²³⁶ Sahagun was convinced that the Christian indoctrination of the Nahuatl had to be carried out in Nahuatl. They were to be called upon in Church service, make the catechisms, and confess in their own language. Sahagun also recognized that his own work had to explain the old traditions in Nahuatl in order to expose possibly dangerous—for example, diabolical or demonical—indigenous rituals and traditions. Sahagun writes this explicitly in his prologue to Book I “About the Gods” in *The Florentine Codex*.²³⁷ *The Florentine Codex* is a peerless multilingual work due to the compiled and systematized material collected just a few decades after the Spanish invasion written in the native vernacular. Sahagun comments and explains his own meticulous methods and thoroughness in the Prologue to Book II of *The Florentine Codex*.²³⁸ Sahagun worked with native assistants and informants. He used standard questions in a now lost questionnaire and consulted pictorial documents, which were commented upon and explained by his indigenous assistants and informants. Sahagun has for that reason, perhaps not undeservedly, been called, “the father of modern ethnography.”²³⁹ Sahagun’s indigenous collaborators consisted of a small group of trilingual—Nahuatl, Spanish, and Latin—sons of the ancient aristocracy educated at Colegio de Santa Cruz, established 1536 in Tlatelolco, of the old Aztec empire. Sahagun and his assistants interviewed anonymous survivors of the Aztec empire from Tepepolco (Hidalgo), Tlatelolco, and Tenochtitlan about their history and culture.²⁴⁰

The missionary linguistic operation of French Catholics (in particular Jesuit) and English Protestants and Anglicans in North America (Canada and the US) originated around 1620 CE. Apart from Moravian (German), the “English tradition” of missionary linguistics began in reality with the Summer Institute of Linguistics (SIL) in the mid-1930s.²⁴¹ Missionary linguists mainly applied Latin script but in some cultures they transferred translations of various Christian scriptures into indigenous languages with developed orthographies and sign systems.²⁴² The Puritan John Eliot (1604–1690) translated the first Bible into an indigenous language, that is, Natick of the Americas. The Bible was translated and transcribed into Cherokee syllabic writing.²⁴³ The American Bible Society produced a Cherokee New Testament of the Cherokee syllabary in 1860.²⁴⁴ A particular syllabary of the Algonquian language Cree of Northern and North-Western Canada was created by the Wesleyan Methodist missionary James Evans (1801–1846) and later adapted to Inuktitut in the 1850s by Anglican missionaries. Evans also translated the Gospel of St. John into the syllabary of Cree from 1846. With Cree native speaker and wife Sophia, the Rev. William Mason published the Bible in Cree syllabic writing in 1861. The syllabary is employed today by the Cree and is officially accepted by the Canadian government.²⁴⁵ Thus, bilingual literacy

²³⁶Olwer and Cline (1974, 187–188).

²³⁷Sahagun (1982 [1565], 45–46).

²³⁸Sahagun (1982 [1565], 53–56).

²³⁹Nicholson (2002, 25).

²⁴⁰Sahagun (1982 [1565], 53–55).

²⁴¹Koerner (2004, 49, 63).

²⁴²Cf. Walker (1981); 1996; Goddard (1996).

²⁴³See http://cherokeeregistry.com/index.php?option=com_content&view=article&id=188&Itemid=259, accessed April 4, 2017.

²⁴⁴Walker (1996, 164).

²⁴⁵Walker (1996, 174); Koerner (2004, 74, note 47).

has been produced in quite a few North American indigenous languages, in particular by missionaries who have developed adapted writing and orthographic systems.²⁴⁶

Translated Catholic doctrinal scriptures—for example, catechisms and confessionals—were produced in the Latin alphabet. Missionary linguists, in particular the Jesuit, Mercedarian and Franciscan orders, operated in the Andean region of South America from the mid-sixteenth century. They translated catechisms, doctrines and sermons primarily into Aymara, Quechua, and Puquina but also other languages of Latin script.²⁴⁷ Representatives of the Spanish monastic orders—in particular the Franciscans, the Dominicans, and the Jesuits—began to evangelize the indigenous people of “New Spain”²⁴⁸ early on with translations in the Latin script.²⁴⁹ Scripture was not only translated from an Indo-European language but also between indigenous languages.²⁵⁰ In addition, indigenous peoples produced bilingual texts in alphabetic script in both indigenous and Latin-based scripts.²⁵¹ The Imperial Colegio de Santa Cruz de Tlatelolco (1536) was the earliest colonial academic library and institution in the Americas. Tlatelolco was the former commercial center of the Aztec capital Tenochtitlan (Mexico City). This multilingual library contained translated books in Latin script of various genres from Europe and the Middle East, mostly in Latin and to a lesser degree in Spanish and in Italian, but also books translated into Nahuatl and probably other indigenous languages of Mesoamerica like Maya, Otomí, and Purépecha. Ecclesial confiscations and control, including by the Inquisition censorship, limited the expansion in addition to the loss of collections of books.²⁵²

The postcolonial twentieth and twenty-first centuries brought a new wave of missionary linguists. North American Evangelical Protestantism is characterized by a theology about the Bible as the single authority of faith, life, and teachings. There are two global Christian evangelical missionary linguist organizations for indigenous people: The US based organizations New Tribes Mission with its headquarters in Sanford, Florida²⁵³ and the Summer Institute of Linguistics today known as SIL²⁵⁴ or Wycliffe Bible Translators (WBT) centered in Dallas, Texas and Orlando, Florida, respectively.²⁵⁵ It is the North American Christian-Evangelical institution Summer Institute of Linguistics (SIL) or Wycliffe Bible Translators²⁵⁶ that have been most active in the production of grammars, dictionaries, literacy campaigns, and new translations of the New Testament—in cooperation with Liga Bíblica de México and the United Bible Societies—into indigenous languages with the intention of converting believers of Catholicism or indigenous religions, as well as non-believers. A majority of the missionary linguists of SIL are members of the partner organization Wycliffe Bible

²⁴⁶Cf. Walker (1996).

²⁴⁷Cf. Durston (2007); Harrison (2008); 2014; Durán (1984–1990); Rivet and Crequi-Montfort (1951–1965).

²⁴⁸Mexico, after the name of the capital Mexica-Tenochtitlan of the Aztecs, was the name the Spaniards eventually chose to denominate this country. The Aztecs, as noted, were called Mexica.

²⁴⁹Catechisms and other doctrinal multilingual alphabetic texts in Spanish and many different Indigenous languages (cf. Contreras García (1987); Resines (1992); 1997).

²⁵⁰Cf. Doesburg and Swanton (2008).

²⁵¹Cf. for instance Swanton (2001) and Indo-European languages (cf. Lockhart (1992); Terraciano (2001).

²⁵²Mathes (1982). Cf. the catalogue of known books in Mathes (1982).

²⁵³<http://www.ntm.org/>, accessed April 4, 2017.

²⁵⁴The designation SIL derives from the first Summer Institute of Linguistics in 1934 in Arkansas, Olson (2009, 646, note 2).

²⁵⁵WBT consists of many independent organizations and international partners, Olson (2009, 646, note 1).

²⁵⁶The two designations, WBT and SIL, serve respectively to represent the mission for Conservative North Americans and to present an image of disinterested scholarship to Latin American authorities, according to Stoll (1990, 17).

Translators, which raises funds and recruits people for SIL.²⁵⁷ This international missionary linguistic evangelical Protestant organization—SIL²⁵⁸ was founded in 1934 and Wycliffe Bible Translators in 1942 by William Cameron Townsend—is one of the largest evangelical missionary and scientific enterprises in the world today, combined with contributions of medical assistance, education, community development and social aid.²⁵⁹ SIL has a staff of around 5,500 missionaries from more than 60 countries. SIL International educates 200–300 linguists every year.²⁶⁰ Approximately 950 of the missionary linguists of SIL have an advanced degree from a college or university.²⁶¹ Its linguistic venture exceeds 2,550 languages spoken by more than 1.7 billion people from almost 100 countries.²⁶² The organization's objective is to bring the evangelical word to the Bible-less people worldwide²⁶³ and it recently completed its five-hundredth translation of the New Testament.²⁶⁴ SIL and Wycliffe Bible Translators are interdenominational but its mandatory Statement of Doctrine ensures that it recruits from the conservative layer of US Protestantism.²⁶⁵ Its members working in the Americas are mostly Caucasian North Americans collaborating with selected indigenous informants and assistants. Like the founder, Townsend, the missionaries of SIL and Wycliffe Bible Translators are from a conservative Evangelical environment in the Midwest and the South of the US. The missionary linguist enterprise illustrates the complexity of translating ideas between different linguistic and epistemological systems in a globalized multilingual world.²⁶⁶

Translations can be conveyed through different media: written, oral, and visual. Christian missionary linguists have been and are quite original in transmitting evangelization into indigenous languages of the Americas. For instance, multilingual translated rhetoric of conversion is publicly displayed in churches in Latin America. A mural on the baptistery entrance from the seventeenth-century in the church of Andahuaylillas, close to Cuzco (capital of the former Inka empire) of Peru displays a fine example of missionary translated multilingualism. The baptismal inscription on the portal (“I baptise you in the name of the Father, of the Son and of the Holy Spirit. Amen”) was written in Latin, Spanish, Quechua, Aymara, and Puquina. A baptistery entrance mural from the same time period in the church of Checacupe, also near Cuzco, contains four of these languages, except Puquina. The mural text was written so that the indigenous peoples should learn the baptismal form in their mother tongue to give baptism to children. Mannheim argues that this mural was a symbolic representation of the Pentecostal multilingualism of the church and “as an icon of the translation process.” In addition, the placement of the various texts represents a linguistic hierarchy and its chain of transmission.²⁶⁷ In Ciudad de Oaxaca of southern Mexico the Jesuit Templo y Convento del Compañía de Jesús, also known as Templo de Inmaculada o

²⁵⁷ Olson (2009, 650).

²⁵⁸ <http://www.sil.org/>, accessed April 4, 2017.

²⁵⁹ Epps and Ladley (2009).

²⁶⁰ Svelmoe (2009, 629).

²⁶¹ Cf. SIL webpage for an outline of procedures, goals, cooperation and team roles in making the translation (<http://www.sil.org/translation/bibletrans.htm>), accessed April 4, 2017.

²⁶² There are around 7,000 languages spoken today according to SIL reference work called *Ethnologue: Languages of the World* (<http://www.ethnologue.com/>), accessed April 4, 2017.

²⁶³ Hvalkof and Aaby (1981); Stoll (1982).

²⁶⁴ Svelmoe (2009, 635).

²⁶⁵ Hvalkof and Aaby (1981, 11); Stoll (1982, 237); Smalley (1991, 167).

²⁶⁶ Cf. Pharo (2017).

²⁶⁷ Mannheim (1991, 47–48); Durston (2007, 123–124).

Templo de Compañía—dedicated to or celebrating the Immaculate Conception—contains a section dedicated to Nuestra Señora de Guadalupe. The following multilingual inscription in English, Spanish and various indigenous languages²⁶⁸ is inscribed on the interior wall of one of the chapels dedicated to the Virgin Mary: “Am I not here, for I am your Mother? (¿No estoy aquí, que soy tu madre?).” These are some of the words, originally in Nahuatl, from Virgin de Guadalupe to Juan Martin in 1531.²⁶⁹

Rachel M. McCleary asserts that since Guatemala is a highly illiterate country with limited access to expensive translated New Testaments, Protestant missionaries began, at the beginning of the twentieth century, to mass evangelise orally, aurally, and visually through open-air services and at fiestas with music and preaching in the Indigenous language. The Protestants made use of new audio and visual communication technologies: lantern projectors (applied in 1880s), portable organs (employed in 1880s), portable phonograph (invented in 1913), reel-to-reel tape recorder (1930s), video (1951), fingerfono (1957), cassette recorder (1963), light-weight portable bullhorn (operated on commercially viable alkaline battery invented 1959), portable projector (commercial use introduced in the late 1950s). From the 1940s missionaries started employing the radio to evangelise in Spanish and in Indigenous languages. Scripture reading in Indigenous languages is an important feature of the Protestant radio shows.²⁷⁰

SIL and Wycliffe Bible Translators are beginning to make translated New Testaments available in PDF. They are accompanied by film and sound.²⁷¹ Films and audio (Mp3), which can be downloaded free of charge, gain more and more importance in evangelization and proselytizing for SIL and Wycliffe Bible Translators. Using technological visual media like the “The JESUS Film Project”²⁷² from the Gospel of Luke, in addition to text, is a powerful tool in the future converting work for the missionary linguists. The “JESUS” film has been translated into more than 1500 languages of the world, with a new language being constantly added. Based upon printed editions of the New Testament, it is mostly the SIL and Wycliffe Bible Translators who produce the translations.²⁷³

18.13 Future Research Explicating Semantics of Multilingualism and Lingua Franca

Administration and educational programs of national governments, mission and churches of various colonial and postcolonial nation-states of the Americas impose an Indo-European lingua franca—Spanish, English, Portuguese, and French—upon the original inhabitants. Missionary linguists (“language and religion”), colonial and postcolonial governments and various institutions (“language and development”) thereby contribute to undermining indigenous languages of the American continent.²⁷⁴

Considerable systematic research on multilingualism and lingua franca as intellectual phenomena, in both literate and oral traditions, is left to be executed both synchronically

²⁶⁸Nahuatl; Mixteco de la Costa; Amuzgo; Chianteco Alta; Triqui de Sn Juan Copala; Mazateco; Alto, Cuicateco; Huaves; Chatino de Yaitepec; Zapoteco del Valle; Zapoteco Sierra Sur; Zapoteco del Istmo; Zapoteco de Teotitlan de Valle.

²⁶⁹Cf. Pharo (2017).

²⁷⁰McCleary (forthcoming in 2017).

²⁷¹http://www.scriptureearth.org/00i-Scripture_Index.php?sortby=country&name=MX, accessed April 4, 2017.

²⁷²<http://www.jesusthefilm.org/>, accessed April 4, 2017.

²⁷³Cf. Pharo (2017).

²⁷⁴Mannheim (1991, 61–63).

and diachronically in the Americas—where there exist an enormous amount of indigenous languages²⁷⁵ and related philosophies. It is important to emphasize that this analysis should be conducted in close collaboration with native speakers and scholars. This is not only a moral obligation but also a necessity since the indigenous peoples are the genuine experts on their languages, practices, and philosophies.

The Bible, and the New Testament in particular, is one of the foremost examples of texts where there are various translations accessible, also known as “massive parallel text (MPT).”²⁷⁶ Besides translated religious scriptures, scholars ought, however, also turn attention to multimedia productions of both originals and translations of scientific, political, economic, and judicial material into Indigenous American languages. For instance, multilingualism and lingua franca can be analyzed in the internationally multitranslated legal document of the UN Declaration of Human Rights of 1948²⁷⁷ as well as *The Declaration on the Rights of Indigenous Peoples* adopted by the General Assembly in 2007.²⁷⁸ But national constitutions translated into indigenous languages are also particularly important as well as significant. Translation of the constitution of Colombia into Nasa Yuwe and Guambiano are examples of indigenous revitalization and representation involving Indigenous elders, linguists, and teachers, and so forth, applying indigenous linguistic methodology appropriating European concepts as well as constructing Indigenous neologisms. Accordingly, indigenous peoples can make definitions and reconceptualizations of core and key concepts and terminology of the constitution and, consequently, the national state through translation.²⁷⁹ A future comparative analysis of translations of Spanish legal terminology and concepts of Latin American national constitutions into, for instance, Quechua and Shuar of Ecuador, into Nahuatl of Mexico and into Guaraní of Paraguay, should therefore indeed be fascinating in relation to developing original methodologies and theories about multilingualism and lingua franca as linguistic-intellectual phenomena.

References

- Aaseng, Nathan (1992). *Navajo Code Talkers: America's Secret Weapon in World War II*. New York: Walker & Company.
- Acosta, José de (2002 [1590]). *Historia natural y moral de las Indias*. Crónicas de América 43. Dastín: Las Rozas.
- Adelaar, W. F. H. (1986). La relación quechua-arú: perspectivas para la separación del léxico. *Revista Andina* 4(2):379–426.
- Adelaar, W. F. H. with the collaboraton of Pieter C. Muysken (2007). *The Languages of the Andes*. Cambridge Language Surveys. Cambridge: Cambridge University Press.

²⁷⁵This also applies to the various idioms or dialects of a language. For instance, in order to make a “Unified Nahuatl” translation of the Roman Catholic Mass the discussion between Nahuatl speaking priests at the 7th Pastoral Workshop on Nahuatl Language and Culture in 2014 in Tehuipango, in the Sierra de Zongolica in Central Veracruz, Mexico, exhibited conflicting issues of grammar due to the diverse language practices of various dialects (cf. Pharo Hansen (2014)).

²⁷⁶Cysouw and Wälchli (2007, 95).

²⁷⁷<http://www.ohchr.org/EN/UDHR/Pages/SearchByLang.aspx>, accessed April 4, 2017.

²⁷⁸<https://www.un.org/development/desa/indigenouspeoples/declaration-on-the-rights-of-indigenous-peoples.html>, accessed July 12, 2017.

²⁷⁹Rappaport (2005, 93–98, 235–240). Cf. Rojas Curieux (1997; 2001).

- Adelaar, W. F. H. and S. Wichmann (2011). *The Linguistic Past of Mesoamerica and the Andes: A Search for Early Migratory Relations Between North and South America. MesAndLin(g)k*. ERC Advanced Grant 2011: Research Proposal.
- Adorno, R. (2011). Andean Empire. In: *Mapping Latin America: A Cartographic Reader*. Ed. by J. Dym and K. Offen. Chicago: University Of Chicago Press, 74–78.
- Aikhenvald, A. Y. (2002). *Language Contact in Amazonia*. Oxford, New York: Oxford University Press.
- Anders, F. and M. Jansen (1993). *Manual del Adivino, libro explicativo del llamado Códice Vaticano B*. México, D.F.: Fondo de Cultura Económica.
- Anders, F., M. Jansen, and G. A. Pérez Jiménez (1992). *El origen e historia de los reyes mixtecos, libro explicativo del llamado Códice Vindobonensis*. México, D.F.: Fondo de Cultura Económica.
- Arnold, P. P. (2011). Indigenous ‘Texts’ of Inhabiting the Land: George Washington’s Wampum Belt and the Canandaigua Treaty. *Postscripts: The Journal of Sacred Texts and Contemporary Worlds* 6(1–3):277–289.
- Asensio, Eugenio (1960). La lengua compañera del imperio: historia de una idea de Nebrija en España y Portugal. *Revista de Filología Española* (43):399–413.
- Basso, K. and N. Anderson (1973). A Western Apache Writing System: The Symbols of Silas John. *Science* 180:1013–1022.
- Baudot, G. (2001). Malintzin. In: *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 2. Ed. by David Carrasco. New York: Oxford University Press, 156–157.
- Bell, W. A. (1965 [1869]). *New Tracks in North America: A Journal of Travel and Adventure whilst Engaged in the Survey for a Southern Railroad to the Pacific Ocean During 1867–1868*. Albuquerque, NM: Horn and Wallace Publishers.
- Boone, E. H. (2000). *Stories in Red and Black: Pictorial Histories of the Aztecs and Mixtecs*. Austin: University of Texas Press.
- (2007a). *Cycles of Time and Meaning in the Mexican Books of Fate*. Joe R. and Teresa Lozano Long Series in Latin American and Latino Art and Culture. Texas: University of Texas Press.
- (2007b). The House of the Eagle. In: *Cave, City, and Eagle’s Nest: An Interpretive Journey through the Mapa de Cuauhtinchan No. 2*. Ed. by D. Carrasco and S. Sessions. Albuquerque, NM: University of New Mexico Press, 27–47.
- (2011). Ruptures and Unions: Graphic Complexity and Hybridity in Sixteenth-Century Mexico. In: *Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America*. Ed. by E. H. Boone and G. Urton. Washington, DC: Dumbarton Oaks, 197–225.
- Boone, E. H. and M. E. Smith (2003). Postclassic International Styles and Symbols Sets. In: *The Postclassic Mesoamerican World*. Ed. by M. E. Smith and F. F. Berdan. Salt Lake City: University of Utah Press, 186–193.
- Boone, E. H. and G. Urton, eds. (2011). *Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America*. Washington, DC: Dumbarton Oaks.
- Brokaw, G. (2010). *History of the Khipu*. Cambridge: Cambridge University Press.
- Brown, C. H., S. Wichmann, and D. Beck (2014). Chitimacha: A Mesoamerican Language in the Lower Mississippi Valley. *International Journal of American Linguistics* 80(4): 425–474.

- Burkhart, L. M. (2014). The “Little Doctrine” and Indigenous Catechesis in New Spain. *Hispanic American Historical Review* 94(2):167–206.
- Callaghan, C. and G. Gamble (1996). Borrowing. In: *Handbook of North American Indians*, vol. 17: *Languages*. Ed. by W. C. Sturtevant and I. Goddard. Washington, DC: Smithsonian Institution, 111–116.
- Calvet, L.-J. (1987). *La guerre des langues et les politiques linguistiques*. Paris: Hachette Littératures.
- Campbell, L. (1997). *American Indian Languages: The Historical Linguistics of Native America*. Oxford Studies in Anthropological Linguistics. Oxford, New York: Oxford University Press.
- Campbell, L., T. Kaufmann, and T. C. Smith-Stark (1986). Meso-America as a Linguistic Area. *Language* 62(3):530–570.
- Campbell, L. and M. Mithun, eds. (2014). *The Languages of Native America: Historical and Comparative Assessment*. Austin: University of Texas Press.
- Carrasco, D. (2001). Preface. In: *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*, Vol. 1. Ed. by D. Carrasco. New York: Oxford University Press, ix–xvii.
- Carrasco, D. and S. Sessions, eds. (2007). *Cave, City, and Eagle’s Nest: An Interpretive Journey through the Mapa de Cuauhtinchan No. 2*. Albuquerque, NM: University of New Mexico Press.
- Cerrón-Palomino, Rodolfo (2008). *Quechumara: estructuras paralelas del quechua y del aimara*. 2nd ed. La Paz, Bolivia: Universidad Mayor de San Simón; PROEIB Andes; Plural Editores.
- Chrisomalis, S. (2010). *Numerical Notation: A Comparative History*. New York: Cambridge University Press.
- Clark, W. P. (1982 [1885]). *The Indian Sign Language*. Lincoln, NE: University of Nebraska Press.
- Closs, M., ed. (1986). *Native American Mathematics*. Austin: University of Texas Press.
- Colop, S. (2011). *Popol Wuj*. Guatemala: F & G Editores.
- Contreras García, I. (1987). Bibliografía catequística Mexicana del siglo XVI. *Boletín del Instituto de Investigaciones Bibliográficas* 1:163–243.
- Coulmas, F. (2003). *Writing Systems: An Introduction to their Linguistic Analysis*. Cambridge Textbooks in Linguistics. Cambridge: Cambridge University Press.
- Cushman, E. (2011). *The Cherokee Syllabary: Writing the People’s Perseverance*. American Indian Literature and Critical Studies Series. Norman: University Oklahoma Press.
- Cysouw, M. and B. Wälchli (2007). Parallel Texts: Using Translational Equivalents in Linguistic Typology. *Sprachtypologie und Universalienforschung* 60(2):95–99.
- d’Olwer, L. N. and H. F. Cline (1974). Sahagún and his Works. In: *Handbook of Middle American Indians*. Vol. 13. Ed. by R. Wauchope, general ed., H. F. Cline, vol. ed., and J. B. Glass, ass. vol. ed. Austin: University of Texas Press, 186–207.
- Dahlgren, B. (1954). *La Mixteca: Su cultura e historia prehispánicas*. Mexico City: Universidad Nacional Autónoma de México.
- Dakin, K. (2010). Linguistic Evidence for Historical Contacts between Nahuas and Northern Lowland Mayan Speakers. In: *Astronomers, Scribes, and Priests: Intellectual Interchange between the Northern Maya Lowlands and Highland Mexico in the Late*

- Postclassic Period*. Ed. by G. Vail and C. Hernández. Washington, DC: Dumbarton Oaks, Harvard University Press, 217–240.
- Dakin, K. and S. Wichmann (2000). Cacao and Chocolate: A Uto-Aztecan Perspective. *Ancient Mesoamerica* 11(1):55–75.
- Daniels, P. T. and W. Bright, eds. (1996). *The World's Writing Systems*. New York: Oxford University Press.
- Dibble, C. E. (1971). Writing in Central Mexico. In: *Handbook of Middle American Indians. Part one: Archaeology of Northern Mesoamerica*. Vol. 10. Ed. by R. Wauchope, general ed., G. F. Ekholm, and I. Bernal. Austin: University of Texas Press, 322–332.
- Dozier, E. P. (1956). Two Examples of Linguistic Acculturation: The Yaqui of Sonora and Arizona and the Tewa of New Mexico. *Language* 32(146–157).
- (1958). Cultural Matrix of Singing and Chanting in Tewa Pueblos. *International Journal of American Linguistics* 24:268–272.
- Duinmeijer, B. (1997). The Mesoamerican Calendar of the Mixes, Oaxaca, Mexico. *Yumitzilob* 9(2):173–205.
- Durán, J. G., ed. (1984–1990). *Monumenta catechetica hispanoamericana: Siglos XVI–XVIII*. Buenos Aires: Facultad de Teología de la Pontificia Universidad Católica Argentina “Santa María de los Buenos Aires”.
- Durrett, D. (2009). *Unsung Heroes of World War II: The Story of the Navajo Code Talkers*. Lincoln, NE: University of Nebraska Press. Library of American Indian History, Facts on File, Inc.
- Durston, A. (2007). *Pastoral Quechua: The History of Christian Translation in Colonial Peru, 1550–1650*. South Bend, IN: University of Notre Dame Press.
- Edgerton, S. Y. (2001). *Theaters of Conversion: Religious Architecture and Indian Artisans in Colonial Mexico*. Albuquerque: University of New Mexico Press.
- Epps, P. and H. Ladley (2009). Syntax, Souls, or Speakers? On SIL and Community Language Development. *Language: Journal of the Linguistic Society of America* 85(3): 640–646.
- Everett, D. L. (Aug. 2005). Cultural Constraints on Grammar and Cognition in Pirahã: Another Look at the Design Features of Human Language. *Current Anthropology* 46(4): 621–646.
- (2008). *Don't Sleep There Are Snakes: Life and Language in the Amazonian Jungle*. New York: Vintage Departures, Vintage Books, A Division of Random House.
- Farnell, B. (1996). Sign Language. In: *Encyclopedia of North American Indians: Native American History, Culture, and Life from Paleo-Indians to the Present*. Ed. by F. E. Hoxie. Washington, DC: Houghton Mifflin Company, 589–590.
- Ferguson, C. (1959). Diglossia. *Word* 15:325–340.
- Fishman, J. (1967). Bilingualism With and Without Diglossia; Diglossia With and Without Bilingualism. *Journal of Social Issues* 23(2):29–38.
- Foster, M. K. (1996). Language and the Culture History of North America. In: *Handbook of North American Indians*, vol. 17: *Languages*. Ed. by W. C. Sturtevant and I. Goddard. Washington, DC: Smithsonian Institution, 64–110.
- Galarza, J. and A. Monod-Bequelin (1992). *Códices testerianos. Catecismos indígenas. El Pater Noster. Método para el análisis de un manuscrito pictográfico del siglo xviii con su aplicación en la primera oración: el Pater Noster*. México: Editorial Tava.

- García Quintana, M. L. (2000). Los *huehuetlatolli* en el *Código Florentino*. *Estudios de cultura náhuatl* 31:123–247.
- Glass, J. B. (1975). A Survey of Native Middle American Pictorial Manuscripts. In: *Handbook of Middle American Indians*, Vol. 14/15. Ed. by R. Wauchope, general ed. and H. F. Cline, vol. ed. Austin: University of Texas Press, 3–80.
- Goddard, I. (1996). The Description of the Native Languages of North America before Boas. In: *Handbook of North American Indians*, vol. 17: *Languages*. Ed. by W. C. Sturtevant and I. Goddard. Washington, DC: Smithsonian Institution, 17–42.
- Greene, C. S. (2009). *One Hundred Summers: A Kiowa Calendar Record*. Lincoln, NE: University of Nebraska Press.
- Greene, C. S. and R. Thornton (2007). *The Year that Stars Fell: Lakota Winter Counts at the Smithsonian*. Lincoln, NE: University of Nebraska Press.
- Grube, N. (1990). *Die Entwicklung der Mayaschrift. Grundlagen zur Erforschung des Wandels der Mayaschrift von der Protoklassik bis zur spanischen Eroberung. Dissertation zur Erlangung der Würde des Doktors der Philosophie der Universität Hamburg*. Acta Mesoamericana 3. Berlin: Verlag von Flemming.
- Hämäläinen, P. (2009). *The Comanche Empire*. The Lamar Series in Western History. New Haven: Yale University Press.
- Hamell, G. R. (1996). Wampum. In: *Encyclopedia of North American Indians: Native American History, Culture, and Life from Paleo-Indians to the Present*. Ed. by F. E. Hoxie. Washington, DC: Houghton Mifflin Company, 662–664.
- Hanke, L. (1959). *Aristotle and the American Indians: A Study in Race Prejudice in the Modern World*. Chicago: Henry Regnery Comp.
- Hansen, M. P. (2014). *Report from the 7th Pastoral Workshop on Nahuatl Language and Culture*. url: <http://nahuatlstudies.blogspot.mx/> (visited on 06/11/2014).
- Harrison, R. (1992). *True Confessions: Quechua and Spanish Cultural Encounters in the Viceroyalty of Peru*. Latin America Studies Center Rockefeller Fellow Series 5. College Park: University of Maryland.
- (2002). Pérez Bocanegra's Ritual formulario. In: *Narrative Threads: Accounting and Recounting in Andean Khipu*. Ed. by J. Quilter and G. Urton. Austin: University of Texas Press, 266–290.
- (2008). Doctrinal Works. In: *Guide to Documentary Sources for Andean Studies, 1530–1900*. Vol. 1. Ed. by J. Pilsbury. Norman: University of Oklahoma Press, 217–234.
- (2014). *Sin & Confession in Colonial Peru: Spanish Quechua Penitential Texts, 1560–1650*. Joe R. and Teresa Lozano Long Series in Latin American and Latino Art and Culture. Austin: University of Texas Press.
- Hartmann, R. (1991). Christian Religious Pictographs from the Andes: Two Examples. *Latin American Indian Literatures Journal (Beaver Falls)* 7(2):172–191.
- Haugen, E. (1972). *The Ecology of Language: Essays by Einar Haugen*. Language Science and National Development. Stanford, CA: Stanford University Press.
- Heggarty, Paul (2005). Enigmas en el origen de las lenguas andinas: aplicando nuevas técnicas a las incognitas por resolver. *Revista Andina* (40):9–57.
- Hewitt, J. B. (1910). Wampum. In: *Handbook of American Indians North of Mexico*. Vol. 2. Ed. by F. W. Hodge. Bureau of American Ethnology Bulletin 30. Washington, DC: Smithsonian Institution.

- Hill, J. H. and K. C. Hill (1986). *Speaking Mexicano: The Dynamics of Syncretic Language in Central Mexico*. Tucson: University of Arizona Press.
- Houston, S. D. (2004). Writing in Ancient Mesoamerica. In: *The First Writing*. Ed. by S. D. Houston. Cambridge: Cambridge University Press, 274–312.
- (2011). All Things Must Change: Maya Writing over Time and Space. In: *Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America*. Ed. by E. H. Boone and G. Urton. Washington, DC: Dumbarton Oaks Research Library and Collection, 21–42.
- Houston, S. D., O. Chinchilla Mazariegos, and D. Stuart, eds. (2001). *The Decipherment of Ancient Maya Writing*. Norman: University of Oklahoma Press.
- Houston, S. D. and M. D. Coe (Dec. 2003). Has Isthmian Writing Been Deciphered? *Mexicon* XXV:151–161.
- Houston, S. D. and T. Inomata (2009). *The Classic Maya*. Cambridge World Archaeology. Cambridge: Cambridge University Press.
- Houston, S. D., J. Robertson, and D. Stuart (2000). The Language of Classic Maya Inscriptions. *Current Anthropology* 41:321–356.
- Houston, S. D. and D. Stuart (1996). Of Gods, Glyphs and Kings: Divinity and Rulership among The Classic Maya. *Antiquity* 70(286):289–312.
- Hvalkof, S. and P. Aaby (1981). Introducing God in the Devil's Paradise. In: *Is God an American?: An Anthropological Perspective on The Missionary Work of The Summer Institute of Linguistics*. Ed. by S. Hvalkof and P. Aaby. Copenhagen, London: IWGIA, Survival International, 9–21.
- Hyland, S. (2014). Ply, Markedness, and Redundancy: New Evidence for How Andean Khipus Encoded Information. *American Anthropologist* 116:643–648.
- (June 2017). Writing with Twisted Cords: The Inscriptive Capacity of Andean Khipus. *Current Anthropology* 58(3).
- Hyland, S., G. Ware, and M. Clark (June 2014). Knot Direction in a Khipu: Alphabetic Text from the Central Andes. *Latin American Antiquity* 25(2):189–197.
- Ibarra Grasso, D. E. (1948). Escritura indigena andina. *Annali Lateranensi* 12:9–124.
- (1953). *Escritura indígena andina*. La Paz: Alcaldía municipal.
- Itier, C. (2011). What Was the Lengua General of Colonial Peru? In: *History and Language in the Andes*. Ed. by P. Heggarty and A. Pearce. London: Plagrave-Macmillan, 63–85.
- Jackson, J. (1974). Language Identity of the Colombian Vaupés Indians. In: *Explorations in the Ethnography of Speaking*. Ed. by R. Bauman and J. Sherzer. Cambridge: Cambridge University Press, 50–64.
- Jansen, M. (1985). Las lenguas divinas del México precolonial. *Revista de Estudios Latinoamericanos y del Caribe* 38:3–14.
- Jansen, M. E. R. G. N. and G. A. Pérez Jiménez (2010). Mixtec Cultural Vocabulary and Pictorial Writing. In: *Linguistics and Archaeology in the Americas: The Historization of Language and Society*. Ed. by E. B. Carlin and S. van de Kerke. Leiden: Brill, 45–82.
- Jansen, M. E. R. G. N. and G. A. Pérez Jiménez (2011). *The Mixtec Pictorial Manuscripts: Time, Agency and Memory in Ancient Mexico*. Early Americas: History and Culture. Leiden: Brill.
- Jemison, G. and A. M. Schein, eds. (2000). *Treaty of Canandaigua 1794: 200 Years of Treaty Relations Between the Iroquois Confederacy and the United States*. Santa Fe, NM: Clear Light Publishers.

- Karttunen, F. and J. Lockhart (1977). *Nahuatl in the Middle Years: Language Contact Phenomena in Texts of the Colonial Period*. University of California Publications in Linguistics 85. Berkeley, Los Angeles, London: University of California Press.
- Kaufmann, T. (with the assistance of John Justeson) (<http://www.famsi.org/reports/01051/pmed.pdf> 2003). *A Preliminary Maya Etymological Dictionary*. Tech. rep. FAMSI Grantee Report.
- King, D. (1996). *Native America in the Twentieth Century: An Encyclopedia*. Ed. by M. B. Davis, M. E. Graham J. Berman, and L. A. Mitten. Garland Reference Library of Social Science 452. New York and London: Garland Publishing Inc.
- Kirchhoff, P. (1943). Mesoamérica: Sus límites geográficos, composición étnica y caracteres culturales. *Acta Americana* 1(1):92–107.
- Kirchhoff, P., L. O. Güemes, and L. Reyes García (1976). *Historia Tolteca-Chichimeca*. México: Fondo de Cultura Económica.
- Koerner, K. (2004). Notes on Missionary Linguistics in North America. In: *Missionary Linguistics [I] / Lingüística misionera [I]. Selected Papers from the First International Conference on Missionary Linguistics: Oslo, 13–16 March 2003*. Ed. by O. Zwartjes and E. Hovdhaugen. Amsterdam, Philadelphia: John Benjamins, 47–80.
- Kroskrity, P. V. (1992). Arizona Tewa Public Announcements: Form, Function, and Language Ideology. *Anthropological Linguistics* (34):104–116.
- (1993). *Language, History, and Identity: Ethnolinguistic Studies of the Arizona Tewa*. Tucson: University of Arizona Press.
- (1998). Arizona Tewa Kiva Speech as a Manifestation of a Dominant Language Ideology. In: *Language Ideologies: Practice and Theory*. Ed. by B. B. Schieffelin, K. A. Woolard, and P. V. Kroskrity. Oxford: Oxford University Press, 103–122.
- (2000). Language Ideologies in the Expression and Representation of Arizona Tewa Ethnic Identity. In: *Regimes of Language: Ideologies, Politics, and Identities*. Ed. by P. V. Kroskrity. Santa Fe, New Mexico: School of American Research Press, 329–359.
- Lacadena García-Gallo, A. (1995). *Evolución formal de las grafías escriturarias mayas: implicaciones históricas y culturales*. PhD thesis. Madrid: Universidad Complutense de Madrid.
- (2005). Los primero vecinos letrados de los mayas: Implicaciones históricas de la presencia de rasgos lingüísticos no-mayas en la escritura maya. In: *The Maya and Their Neighbours: Internal and External Contacts Through Time*. Ed. by L. van Broekhoven, R. V. Rivera, B. Vis, and F. Sachse. Leiden University. 10th European Maya Conference.
- (2008). Regional Scribal Traditions: Methodological Implications for the Decipherment of Nahuatl Writing. *PARI Journal* 8(4):1–22.
- (2010). Highland Mexican and Maya Intellectual Exchange in the Late Postclassic: Some Thoughts on the Origin of Shared Elements and Methods of Interaction. In: *Astronomers, Scribes, and Priests: Intellectual Interchange between the Northern Maya Lowlands and Highland Mexico in the Late Postclassic Period*. Ed. by G. Vail and C. Hernández. Washington, DC: Dumbarton Oaks, Harvard University Press, 383–406.
- Lacadena García-Gallo, A. and S. Wichmann (2002). The Distribution of Lowland Maya Languages in the Classic Period. In: *La organización social entre los mayas: Memoria de la Tercera Mesa Redonda de Palenque* Vol. 2. Ed. by V. Tiesler, R. Cobos, and

- M. G. Robertson. México, D.F.: Instituto Nacional de Antropología e Historia and Universidad Autónoma de Yucatán, 275–314.
- (2004). On the Representation of the Glottal Stop in Maya Writing. In: *The Linguistics of Maya Writing*. Ed. by S. Wichmann. Salt Lake City: University of Utah Press, 103–162.
 - (2005). The Dynamics of Language in the Western Lowland Maya Region. In: *Art for Archaeology's Sake: Material Culture and Style Across the Disciplines: Proceedings of the Thirty-Third Annual Conference of the Archaeological Association of the University of Calgary*. Ed. by A. Waters-Rist, C. Cluney, C. McNamee, and L. Steinbrenner. Calgary: The University of Calgary Archaeological Association, 32–48.
- Laso de la Vega, L., L. Sousa, S. Poole, J. Lockhart, and M. Sánchez (1998). *The Story of Guadalupe: Luis Laso de la Vega's Huei tlamahuiçoltica of 1649*. Ed. by L. Sousa, S. Poole, and J. Lockhart. UCLA Latin American Studies 84: Nahuatl Studies Series 5. Stanford: Stanford University Press.
- Law, D. (2014). *Language Contact, Inherited Similarity and Social Difference: The Story of Linguistic Interaction in the Maya Lowlands*. Amsterdam: John Benjamins.
- Leavitt, R. M. (2011). Reading a Dictionary: How Passamaquoddy Language Translates Concepts of Physical and Social Space. In: *Born in the Blood: On Native American Translation*. Ed. by B. Swann. Lincoln, NE: University of Nebraska Press, 43–60.
- Leibsohn, D. (2001). Testerman Manuscripts. In: *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 3. Ed. by D. Carrasco. New York: Oxford University Press, 214–215.
- Lipp, F. J. (1983). *The Mije Calendrical System: Concepts and Behavior*. PhD thesis. New York: New School for Social Research.
- (1991). *The Mixe of Oaxaca: Religion, Ritual and Healing*. Austin: University of Texas Press.
- Locke, L. L. (1923). *The Ancient Quipu, or Peruvian Knot Record*. New York: The American Museum of Natural History.
- (1928). Supplementary Notes on the Quipus in the American Museum of Natural History. *Anthropological Papers of the American Museum of Natural History* 30(2):39–71.
- Lockhart, J. (1992). *The Nahuas After the Conquest: A Social and Cultural History of the Indians of Central Mexico, Sixteenth Through Eighteenth Centuries*. Stanford: Stanford University Press.
- López Austin, A. (1967). Términos del Nahuallatolli. *Historia Mexicana* 17:1–36.
- (2001). Aztec. In: *The Oxford Encyclopedia of Mesoamerican Cultures: The civilizations of Mexico and Central America*, Vol. 1. Ed. by D. Carrasco. New York: Oxford University Press, 68–72.
- López Austin, A. and L. López Luján (1998). *Mito y Realidad de Zuyúa: Serpiente Emplumada y las transformaciones mesoamericanas del clásico al posclásico*. Fideicomiso Historia De Las Americas. México: Fondo de Cultura Económica.
- López García, U. (2007). *Sa'vi: Discurso ceremoniales de Yutsa To'on (Apoala)*. PhD thesis. Leiden: Leiden University.
- (2008). Sa'vi: el lenguaje ceremonial. In: *Mixtec Writing and Society: Escritura de Ñuu Dzauí*. Ed. by M. E. R. G. N. Jansen and L. N. K. van Broekhoeven. Amsterdam: KNAW Press. Koninklijke Nederlandse Akademie van Wetenschappen, 407–421.

- Mackey, C. J. (1970). *Knot Records in Ancient and Modern Peru*. PhD thesis. Berkeley: University of California.
- (2002). The Continuing Khipu Traditions. In: *Narrative Threads: Accounting and Re-counting in Andean Khipu*. Ed. by J. Quilter and G. Urton. Austin: University of Texas Press, 321–347.
- Macri, M. J. (2010). Scribal Interaction in Postclassic Mesoamerica. In: *Astronomers, Scribes, and Priests: Intellectual Interchange between the Northern Maya Lowlands and Highland Mexico in the Late Postclassic Period*. Ed. by G. Vail and C. Hernández. Washington, DC: Dumbarton Oaks, Harvard University Press, 193–215.
- Mallery, G. (1880). *Collection of Gesture-Signs and Signals of North American Indians with Some Comparisons*. Washington, DC: Government Printing Office.
- (1881). Sign Language among North American Indians Compared with That among Other Peoples and Deaf-Mutes. In: *Bureau of American Ethnology Annual Report*. Washington, DC: Smithsonian Institution, 262–552.
- Mannheim, B. (1991). *The Language of the Inka Since the European Invasion*. Texas Linguistics Series. Austin: University of Texas Press.
- Martin, S. and N. Grube (2000). *Chronicle of the Maya Kings and Queens*. London: Thames and Hudson.
- Mathes, W. M. (1982). *Santa Cruz de Tlatelolco: La primera biblioteca académica de las Américas*. Archivo Histórico Diplomático Mexicano, Cuarta Época 12. México: Secretaría de relaciones exteriores.
- McCleary, R. M. (forthcoming in 2017). Protestant Innovative Evangelizing to Oral Cultures in Guatemala. In: *Oxford Handbook of Latin American Christianity*. Ed. by D. T. Orique and S. Fitzpatrick Behrens. New York: Oxford University Press.
- Meadows, W. C. (2002). *The Comanche Code Talkers of World War II*. Austin: University of Texas Press.
- Mikulska Dabrowska, K. (2008). *El lenguaje enmascarado: un acercamiento a las representaciones gráficas de deidades nahuas*. México, D.F.: UNAM.
- (2010). Secret Language in Oral and Graphic Form: Religious-Magic Discourse in Aztec Speeches and Manuscripts. *Oral Tradition* 25(3):325–363.
- Miller, R. W. (1996). The Ethnography of Speaking. In: *Handbook of North American Indians*, vol. 17: *Languages*. Ed. by W. C. Sturtevant and I. Goddard. Washington, DC: Smithsonian Institution, 222–243.
- Mitchell, W. P. and B. H. Jaye (1996). Pictographs in the Andes: The Huntington Free Library Quechua Catechism. *Latin American Indian Literatures Journal* 12(1):1–42.
- Mitchell, W. P. and B. H. Jaye (2008). Pictographic Catechisms. In: *Guide to Documentary Sources for Andean Studies, 1530–1900* *emphVol. 1*. Ed. by J. Pillsbury. Oklahoma: University of Oklahoma Press In collaboration with the Center for Advanced Study in the Visual Arts, National Gallery of Art.
- Mithun, M. (1999). *The Languages of Native North America*. Cambridge Language Surveys. Cambridge: Cambridge University Press.
- Mooney, J. (1992 [1897]). *James Mooney's History, Myths, and Sacred Formulas of the Cherokees*. Ed. by G. Ellison. Asheville, NC: Historical Images.
- Mora-Marín, David F. (2003). *Pre-Ch'olan as the Standard Language of Classic Lowland Mayan Texts*. Paper presented at the 2002-2003 SSILA Meeting. Atlanta, Georgia, Jan-

- uary, 2003. url: <http://davidmm.web.unc.edu/files/2010/08/PreCholanSSILA.pdf> (visited on 04/20/2018).
- Mora-Marín, David F., Nicholas Hopkins, and Kathryn Josserand (2009). The Linguistic Affiliation of Classic Lowland Mayan Writing and the Historical Sociolinguistic Geography of the Mayan Lowlands. In: *The Ch'orti' Area: Past and Present on the South-eastern Maya Periphery*. Ed. by Brent E. Metz, Cameron L. McNeil, and Kerry Hull. University Press of Florida, 15–28.
- Murra, J. V. (1998). Litigation Over the Rights of ‘Natural Lords’ in the Early Colonial Courts in the Andes. In: *Native Traditions in the Postconquest World*. Ed. by E. H. Boone and T. Cummins. Washington, DC: Dumbarton Oaks, 55–61.
- Nicholson, H. B. (1966). The Significance of the “Looped Cord” Year Symbol In Pre-Hispanic Mexico: an Hypothesis. In: *Estudio de Cultura Náhuatl Vol. 6*. México: Instituto de Investigaciones Históricas; Universidad Nacional Autónoma de México, 135–148.
- (2002). Fray Bernardino de Sahagún: A Spanish Missionary in New Spain, 1529–1590. In: *Representing Aztec Ritual: Performance, Text, and Image in the Work of Sahagún*. Ed. by E. Quiñones Keber. Boulder, CO: University Press of Colorado, 21–42.
- Olson, K. (2009). SIL International: An Emic View. *Language: Journal of the Linguistic Society of America* 85(3):646–652.
- Padley, G. A. (1985–1988). *Grammatical Theory in Western Europe, 1500–1700: Trends in Vernacular Grammar*. 2 vols. Cambridge: Cambridge University Press.
- Pagden, A. (1982). *The Fall of Natural Man: The American Indian and the Origins of Comparative Ethnology*. Cambridge: Cambridge University Press.
- Pärssinen, M. (1992). *Tawantinsuyu: The Inca State and its Political Organization*. Studia Historica 43. Helsinki: Societas Historica Finlandiae.
- Pärssinen, M. and J. Kiviharju (2004). *Textos Andinos: Corpus de textos khipu incaicos y coloniales*. Vol. 1. Acta Ibero-Americana Fennica. Series Hispano-Americano 6. Madrid: Instituto Iberoamericano de Finlandia & Universidad Complutense de Madrid.
- (2010). *Textos Andinos: Corpus de textos khipu incaicos y coloniales*. Vol. 2. Acta Ibero-Americana Fennica. Series Hispano-Americano 9. Madrid: Instituto Iberoamericano de Finlandia & Universidad Complutense de Madrid.
- Peralta Ramírez, V. (2004). Las metáforas del náhuatl actual como una estrategia discursiva dentro de los eventos rituales. In: *La metáfora en Mesoamérica*. Ed. by M. Montes de Oca Vega. Mexico City: Instituto de Investigaciones Históricas, Universidad Nacional Autónoma de México, 171–191.
- Pérez Jiménez, G. A. (2008). *Sahìn Sàu: Curso de Lengua Mixteca (variante de Ñuù Ndéyá)*. Oaxaca, México: CSEIIO. Con notas históricas y culturales.
- Pharo, L. K. (2016). Transfer of Moral Knowledge in Early Colonial Latin America. In: *The Globalization of Knowledge in the Iberian Colonial World*. Ed. by Helge Wendt. Berlin: Edition Open Access, 29–94.
- (2017). *Concepts of Conversion: The Politics of Missionary Scriptural Translations*. Religion and Society. Berlin: De Gruyter.
- Poole, S. (2001). Guadalupe, Nuestra Señora de. In: *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1. Ed. by D. Carrasco. New York: Oxford University Press, 444–446.

- Porras Barrenechea, R. (1999). *Indagaciones peruanas: el legado quechua*. Lima: Universidad Nacional Mayor de San Marcos.
- Prem, H. J. (1992). Aztec Writing. In: *Supplement to the Handbook of Middle American Indians. Epigraphy*. Vol. 5. Ed. by V. R. Bricker. Austin: University of Texas Press, 53–69.
- Quilter, J. and G. Urton, eds. (2002). *Narrative Threads: Accounting and Recounting in Andean Khipu*. Austin: University of Texas Press.
- Rafael, V. L. (1992). *Contracting Colonialism: Translation and Christian Conversion in Tagalog Society Under Early Spanish Rule*. Durham, NC: Duke University Press.
- Ramos, G. (2011). Language and Society in Early Colonial Peru. In: *History and Language in the Andes*. Ed. by P. Heggarty and A. Pearce. London: Plaggrave-Macmillan, 19–38.
- Rappaport, J. (2005). *Intercultural Utopias: Public Intellectuals, Cultural Experimentation, and Ethnic Pluralism in Colombia*. Durham, NC: Duke University Press.
- Resines, L. (1992). *Catecismos Americanos del siglo XVI*. 2 vols. Salamanca: Junta de Castilla Y León, Consejería de Cultura y Turismo.
- (1997). *La catequesis en España, historia y textos*. Madrid: Biblioteca de Autores Cristianos.
- Ricard, R. (1966). *The Spiritual Conquest of Mexico*. Berkeley and Los Angeles: University of California Press.
- Rivet, P. and G. de Créqui-Montfort (1951–1965). *Bibliographie des langues aymará et kičua* 4 vols. Travaux et Mémoire de l'Institut d'Ethnologie 51. Paris: Institut d'Ethnologie, Université de Paris.
- Robinson, G. (2011). *The Language of Victory: American Indian Code Talkers of World War I and World War II*. Bloomington: Universe Publishing.
- Rodríguez Martínez, M. del C., P. Ortiz Ceballos, M. D. Coe, R. A. Diehl, S. D. Houston, K. A. Taube, and A. Delgado Calderón (2006). Oldest Writing in the New World. *Science* 313(5793):1610–1614.
- Rojas Curieux, T. (2001). Transportar la cosa hablada a otra lengua: La experiencia del la traducción de la Constitución del República a lenguas indígenas. In: *Concepciones de la Conquista: Aproximaciones interdisciplinarias*. Ed. by F. Castañeda and M. Vollet. Bogotá: Ediciones UniAndes, 361–388.
- Rojas Curieux, Tulio (1997). La traducción de la Constitución del la República de Colombia a lenguas indígenas. República de Colombia, Dirección General de Asuntos Indígenas. In: *Del olvido surgimos para traer nuevas esperanzas: la jurisdicción especial indígena*. Santa Fe de Bogotá: Ministerio de Justicia y del Derecho, Consejo Regional Indígena del Cauca, Ministerio de Interior, Dirección General de Asuntos Indígenas, 229–244.
- Rojas Martínez Gracida, A. (2012). *El Tiempo y la sabiduría en Poxoyēm: Un calendario sagrado entre los ayook de Oaxaca*. PhD thesis. Leiden: Leiden University.
- Ruiz Medrano, E. (2007). The Lords of the Land: The Historical Context of the Mapa Cuauhtinchan No. 2. In: *Cave, City, and Eagle's Nest: An Interpretive Journey through the Mapa de Cuauhtinchan No. 2*. Ed. by D. Carrasco and S. Sessions. Albuquerque, NM: University of New Mexico Press, 91–119.
- Sahagún, B. de (1982 [1565]). *Florentine Codex: The General History of the Things of New Spain*. 13 vols. Salt Lake City: University of Utah Press. Translated by C. E. Dibble and A. J. V. Anderson.

- Sahagún, Fray Bernardino de (1997 [1560]). *Primeros Memoriales*. Ed. by H. B. Nicholson, A. J. O. Anderson, C. E. Dibble, E. Quiñones Keber, and W. Ruwet. The Civilization of American Indian Series 200. Norman: University of Oklahoma Press, in cooperation with the Patrimonio Nacional and the Real Academia de la Historia, Madrid, Spain. Paleography of Nahuatl text and English translation by Thelma D. Sullivan.
- Salomon, F. (2002). Patrimonial Khipus in a Modern Peruvian Village: An Introduction to the Quipocamayos of Tupicocha, Huarochirí. In: *Narrative Threads: Accounting and Recounting in Andean Khipu*. Ed. by J. Quilter and G. Urton. Austin: University of Texas Press, 293–319.
- (2004). *The Cord Keepers: Khipus and Cultural Life in a Peruvian Village*. Durham, NC: Duke University Press.
- (2008). Late Khipu Use. In: *The Disappearance of Writing Systems: Perspectives on Literacy and Communication*. Ed. by J. Baines, J. Bennet, and S. D. Houston. London: Equinox, 285–310.
- Salomon, F., C. J. Brezine, R. Chapa, and V. Falcón Huayta (2011). Khipu from Colony to Republic: The Rapaz Patrimony. In: *Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America*. Ed. by E. H. Boone and G. Urton. Washington, DC: Dumbarton Oaks, 353–378.
- Salomon, F. and S. Hyland, eds. (2010). *Graphic Pluralism: Native American Systems of Inscription and the Colonial Situation*. Durham, NC: Duke University Press. Special issue of *Ethnohistory*, 57:1.
- Salomon, F. and M. Niño-Murcia (2011). *The Lettered Mountain*. Durham: Duke University Press.
- Sandstrom, A. R. (2010). The Nahua. *The Nahua Newsletter* 49:22–37.
- Saturno, W. A., D. Stuart, and B. Beltrán (2006). Early Maya Writing at San Bartolo, Guatemala. *Science* 311(5765):1281–1283. doi: 10.1126/science.1121745.
- Schroeder, S. (2001). Chimalpahin Quauhtlehuantzin, Domingo Francisco de San Antón Muñon. In: *The Oxford Encyclopedia of Mesoamerican Cultures: The Civilizations of Mexico and Central America*. Vol. 1. Ed. by D. Carrasco. New York: Oxford University Press, 196–198.
- Schwaller, R. C., ed. (2012). *A Language of Empire, a Quotidian Tongue: The Uses of Nahuatl in New Spain*. Durham, NC: Duke University Press. Special issue of *Ethnohistory*, 59:4.
- Silverstein, M. (1996). Dynamics of Recent Linguistic Contact. In: *Handbook of North American Indians*, vol. 17: *Languages*. Ed. by W. C. Sturtevant and I. Goddard. Washington, DC: Smithsonian Institution, 117–136.
- Smalley, W. A. (1991). *Translation as Mission: Bible Translation in the Modern Missionary Movement. The Modern Mission Era, 1792–1992: An Appraisal*. Macon, GA: Mercer University Press.
- Smith, M. E. (1973). *Picture Writing from Ancient Southern Mexico: Mixtec Place Signs and Maps*. The Civilization of the American Indian Series 124. Norman: University of Oklahoma Press.
- Stoll, D. (1982). *Fishers Of Men Or Founders Of Empire?: The Wycliffe Bible Translators in Latin America*. London: Zed Press.
- (1990). *Is Latin America Turning Protestant?: The Politics of Evangelical Growth*. Berkeley: University of California Press.

- Stross, B. (1983). The Language of Zuyua. *American Ethnologist* 10:150–164.
- Stuart, D. (1998). “The Arrival of Strangers: Teotihuacan and Tollan in Classic Maya History”. Prepared for the symposium: “The Classic heritage: From Teotihuacan to the Templo Mayor.” Princeton University October 1996. Revised Draft: February, 1998. Unpublished Manuscript.
- (2000). The Arrival of Strangers: Teotihuacan and Tollan in Classic Maya History. In: *Mesoamerica’s Classic Heritage: Teotihuacán to the Aztecs*. Ed. by L. Jones D. Carrasco and S. Sessions. Boulder, CO: University Press of Colorado.
- (2005). A Brief Introduction to Maya Writing. In: *The Sourcebook for the 29th Maya Hieroglyph Forum*. Ed. by D. Stuart. Austin: University of Texas, 3–90.
- Sullivan, A. (1986). A Scattering of Jades: The Words of the Aztec Elders. In: *Symbol and Meaning Beyond the Closed Community: Essays in Mesoamerican Ideas* Vol. 1. Ed. by G. H. Gossen. Albany, NY: State University of New York, Institute for Mesoamerican Studies, 9–17.
- Svelmoe, W. L. (2009). “We Do Not Want to Masquerade as Linguists”: A Short History of SIL and the Academy. *Language* 85(3):629–635.
- Swann, Brian, ed. (2011). *Born in the Blood: On Native American Translation*. Lincoln, NE: University of Nebraska Press.
- Swanton, M. (2008). Multilingualism in the Tocují Ñudzavui Region. In: *Mixtec Writing and Society: Escritura de Ñuu Dzauui*. Ed. by M. E. R. G. N. Jansen and L. N. K. van Broekhoeven. Amsterdam: KNA Press. Koninklijke Nederlandse Akademie van Wetenschappen, 347–380.
- Swanton, M. W. (2001). El texto Popolocua de la historia Tolteca-Chichimeca. *Relaciones* 22(86):117–140.
- Swanton, M. and G. Bas van Doesburg (1996). Some Observations on the Lost Lienzo de Santa María Ixcatlan (Lienzo Seler I). *Baessler Archiv* 44:359–377.
- Taube, K. A. (1992). *The Major Gods of Ancient Yucatan: Schell’s Revisited*. Studies in Pre-Columbian Art and Archaeology 82. Washington, DC: Dumbarton Oaks.
- (2000). *The Writing System of Ancient Teotihuacan*. Ancient America 1. Barnardville, NC: Center for Ancient American Studies.
- (2004). Tetitla and the Maya Presence at Teotihuacan. In: *The Maya and Teotihuacan: Reinterpreting Early Classic Interaction*. Ed. by G. E. Braswell. Austin: University of Texas Press, 273–314.
- (2011). Teotihuacan and the Development of Writing in Early Classic Central Mexico. In: *Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America*. Ed. by E. H. Boone and G. Urton. Washington, DC: Dumbarton Oaks, 77–109.
- Taube, K. A. and B. Bade (1991). *An Appearance of Xiuhtecuhtli in Dresden Venus Pages*. Research Reports on Ancient Maya Writing 35. Washington, DC: Center for Maya Research.
- Taylor, A. (1996). Nonspeech Communication Systems. In: *Handbook of North American Indians*, vol. 17: *Languages*. Ed. by W. C. Sturtevant and I. Goddard. Washington, DC: Smithsonian Institution, 275–289.
- Taylor, A. R. (1981). Indian Lingua Francas. In: *Language in the USA*. Ed. by C. A. Ferguson and S. B. Heath. Cambridge: Cambridge University Press, 175–195.
- Taylor, C. (1975). *The Warriors of the Plains*. New York: Arco Publishing Company.

- (1991). The Plains. In: *The Native Americans: The Indigenous People of North America*. Ed. by C. Taylor and W. C. Sturtevant. San Diego, CA: Thunder Bay Press, 62–99.
- Tehanetorens (Ray Fadden) (1999). *Wampum Belts of the Iroquois*. Summertown, TN: Book Publishing Company.
- Terraciano, K. (2001). *The Mixtecs of Colonial Oaxaca: Nudzahui History, Sixteenth Through Eighteenth Centuries*. Stanford, CA: Stanford University Press.
- (July 2015). Parallel Nahuatl and Pictorial Texts in the Mixtec Codex Sierra Texupan. *Ethnohistory* 62(3):497–524.
- Torero, A. (1974). *El quechua y la historia social andina*. Lima: Universidad Ricardo Palma.
- (2002). *Idiomas de los Andes: Lingüística e Historia*. Lima: Instituto Francés de Estudios Andinos.
- Umberger, E. G. (1981a). *Aztec Sculptures, Hieroglyphs, and History*. PhD thesis. New York: Columbia University.
- (1981b). The Structure of Aztec History. *Archaeoastronomy* 4:10–18.
- Urcid, J. (2001). *Zapotec Hieroglyphic Writing*. Washington DC: Dumbarton Oaks Research Library and Collection.
- (2005). *Zapotec Writing: Knowledge, Power, and Memory in Ancient Oaxaca*. Waltham: Brandeis Univ., Dept. of Anthropology.
- Urton, G. (2002). Recording Signs in Narrative-Accounting Khipu. In: *Narrative Threads: Accounting and Recounting in Andean Khipu*. Ed. by J. Quilter and G. Urton. Austin: University of Texas Press, 171–196.
- (2003). *Signs of the Inka Khipu*. Austin: University of Texas Press.
- (2008). Andean Quipu: A History of Writings and Studies on Inca and Colonial Knotted-String Records. In: *Guide to Documentary Sources for Andean Studies, 1530–1900* Vol. 1. Ed. by J. Pillsbury. Norman: University of Oklahoma Press, 65–86. In collaboration with the Center for Advanced Study in the Visual Arts, National Gallery of Art, Washington, D.C.
- (2009). Sin, Confession, and the Arts of Book and Cord-Keeping: An Intercontinental and Transcultural Exploration of Accounting and Governmentality. *Comparative Studies in Society and History* 51(4):801–831.
- Urton, G. and C. J. Brezine (2011). Khipu Typologies. In: *Their Way of Writing: Scripts, Signs, and Pictographies in Pre-Columbian America*. Ed. by E. H. Boone and G. Urton. Washington, DC: Dumbarton Oaks, 319–335.
- Valdeón, R. A. (2014). *Translation and the Spanish Empire in the Americas*. Benjamins Translation Library 113. Amsterdam: John Benjamins.
- van Doesburg, S. and M. Swanton (2008). La Traducción de la Doctrina Cristiana en Lengua Mixteca de Fray Benito Hernández al Chocholteco (Ngiwa). In: *Memorias del Coloquio Francisco Belmar: Conferencias sobre lenguas otomangues y oaxaqueñas*. Vol. 2. Ed. by A. López Cruz and M. Swanton. México: Biblioteca Francisco de Buroa, UABJO, 81–117.
- Wake, E. (2007). The Serpent Road: Iconic Encoding and the Historical Narrative of the Mapa de Cuauhtinchan No. 2. In: *Cave, City, and Eagle's Nest: An Interpretive Journey through the Mapa de Cuauhtinchan No. 2*. Ed. by D. Carrasco and S. Sessions. Albuquerque, NM: University of New Mexico Press, 205–254.

- Walker, W. (1981). Native American Writing Systems. In: *Language in the USA*. Ed. by C. A. Ferguson and S. B. Heath. Cambridge: Cambridge University Press, 145–174.
- (1996). Native American Writing Systems. In: *Handbook of North American Indians*, vol. 17: *Languages*. Ed. by W. C. Sturtevant and I. Goddard. Washington, DC: Smithsonian Institution, 158–184.
- West, L. (1960). *The Sign Language: An Analysis*. PhD thesis. Indiana University.
- White, L. A. (1944). A Ceremonial Vocabulary Among the Pueblos. *International Journal of American Linguistics* 10(4):161–167.
- Whitecotton, J. W. (1977). *The Zapotecs: Princes, Priests, and Peasants*. The Civilization of the American Indian Series. Norman: University of Oklahoma Press.
- Whittaker, G. (1986). The Mexican Names of Three Venus Gods in the Dresden Codex. *Mexicon* 8(3):56–60.
- Wichmann, S. (1995). *The Relationship Among the Mixe-Zoquean Languages of Mexico*. Salt Lake City: University of Utah Press.
- (1999a). A Conservative Look at Diffusion Involving Mixe-Zoquean Languages. In: *Archaeology and Language II: Archaeological Data and Linguistic Hypotheses*. Ed. by Roger Blench and Matthew Spriggs. London: Routledge, 297–323.
- (1999b). On the Relationship Between UtoAztec and MixeZoquean. *Kansas Working Papers in Linguistics* 24(2):101–113.
- (2000). “Mayaernes skrift: Introduksjon og håndbok”. Private Copy (in preparation). København.
- (2006a). A New Look at Linguistic Interaction in the Lowlands as a Background for the Study of Maya Codices. In: *Sacred Books, Sacred Languages: Two Thousand Years of Ritual and Religious Maya Literature. Proceedings of the 8th European Maya Conference, Madrid, November 25–30, 2003*. Ed. by V. Rivera and G. L. Fort. Acta Mesoamericana 18. Markt Schwaben: Verlag Anton Saurwein, 45–64.
- (2006b). Mayan Historical Linguistics and Epigraphy: A New Synthesis. *Annual Review of Anthropology* 35:279–294.
- (2006c). *Mixe-Zoquean Loanword on the Late Preclassic Maya Murals of San Bartolo*
- Wright Carr, D. C. (2007). “Los dioses en las lenguas otomí y náhuatl, ponencia presentada en el IX Coloquio Internacional sobre Otopames, Xalapa, 13 de noviembre de 2007”. Universidad Veracruzana (proceedings in press).
- (2008). La sociedad prehispánica en las lenguas náhuatl y otomí. *Acta Universitaria de Mexico* 18(special no. 1):15–23.
- (2009). El Calendario Mesoamericano en las lenguas Otomí y Náhuatl. *Revista de Fuentes para el concimiento de las culturas indígenas de México* XVI:217–253.
- Wurtzburg, S. and L. Campbell (1995). North American Indian Sign Language: Evidence of its Existence before European Contact. *International Journal of American Linguistics* 61:153–167.
- Yannakakis, Y. (2014). Making Law Intelligible: Networks of Translation in Mid-Colonial Oaxaca. In: *Indigenous Intellectuals: Knowledge, Power and Colonial Culture in Mexico and Andes*. Ed. by G. Ramos and Y. Yannakakis. Durham and London: Duke University Press.
- Yoneda, K. (2007). Glyphs and Messages in the Mapa de Cuauhtinchan No. 2: Chicomoztoc, Itzpapalotl and 13 Flint. In: *Cave, City, and Eagle's Nest: An Interpretive Journey*

through the Mapa de Cuauhtinchan No. 2. Ed. by D. Carrasco and S. Sessions. Albuquerque, NM: University of New Mexico Press, 161–203.