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Here it is. A Nahuatl translation of European cosmology : context and contents of the Izcatqui manuscript in the Royal Tropical Institute, Amsterdam

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HERE IT IS

**A Nahuatl Translation of European Cosmology: Context and Contents of
the Izcatqui Manuscript in the Royal Tropical Institute, Amsterdam**

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in 1984

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A Note on Transcription and Translation

The dissertation presents a selection of transcriptions and translations of parts of ms 3523-2. Rather than providing a transcription spanning cover to cover, I have selected those fragments that to me have revealed the most significant information for each of the themes presented in the following text, according to my best ability to translate them. Furthermore, I have deliberately directed my selection process towards the respective aims of:

- 1) the identification of source texts; and thus similarities between ms 3523-2 and texts that were consulted prior and during the production of the manuscript;
- 2) adaptations or alterations: and thus dissimilarities between ms 3523-2 and source texts;
- 3) to try and understand how European texts were interpreted in a Mesoamerican context and exploring ways of how its makers dealt with the issue of “untranslatability” of foreign concepts.

Considering ms 3523-2 as a whole, translations that have not been presented in the transcription/translation format were just as much of value in order to understand its content; my rendering of them are presented in the format of a descriptive text. I am aware that the aims mentioned above, lead to a specific and subjective interpretation of *parts* of the manuscript under study.

Transcriptions are provided with several alterations to the original text with the aim to produce a text that is easy to follow, also for those who are not familiar with the language of Classical Nahuatl. I have omitted full stops; abbreviated words are written in full text and are indicated by [...]. I have added spacing between certain words that are glued together in the text itself (a common feature in Nahuatl writing) for reasons of readability; for example *yninmacehual* becomes *ynin macehual* [lit: this one commoner]. In addition, and also to enhance readability, I present transcriptions and translations as how I would read and understand sentences that make sense and are complete. I do present lines as they follow one another in the text. Thus, where one line stops and the next commences, I use a [/] so the reader is aware of the length of lines in the original text. Unreadable parts due to damages of the page are indicated by [.../] and wherever I felt reconstructions could be made, I have added text in between [.../] (for example *ygle/sia/*).

Translations are provided in English; my deepest gratitude to Dr. Raul Macuil Martínez, Dr. Søren Wichmann and Professor dr. Maarten Jansen for their help in both translations and corrections of my translations. Their contributions have been of tremendous value. I take full responsibility for any mistranslations of Raul's Spanish feedback as well as for mistranslations of the Nahuatl text that remain in my dissertation. For readability's sake, I have chosen to present transcriptions and translations in columns side by side, and to exclude a linguistic analysis. By doing so, I am implicitly asking the reader to trust my capabilities to translate this Nahuatl text. As a way of compensating this as well as illustrating how I have reached towards my translations, I have added three appendices that do include a linguistic analysis of Nahuatl.

Introduction

Aims

The following research has been conducted as one of four doctoral studies within the Research Area, “Global Interactions of People, Cultures and Power” at Leiden University (from here on LGI: Leiden Global Interactions). LGI took off in 2009/2010 as a collaborative effort of the faculties of Archaeology, Humanities, and the Social Sciences. Together, these faculties have joined forces in creating an interdisciplinary platform to study processes and effects of global interactions in historical and contemporary contexts. Two themes are paramount in the approach towards global interactions; namely, mobility (migration in its different forms) and culture (heritage). These two themes have been articulated to varying degrees in individual research within a large and growing network of scholars associated with this Research Area. In addition to understanding different types of migrations and its consequences, these studies take a critical approach to historically developed social, political, and economic notions of local and global (or ‘us’ and ‘other’) that have co-created our current perspectives of world history and globalization. The repercussions of people and objects that travel, as well as of moving ideas and cultures, have had an impact at both the national and international level on matters of ownership, repatriation, cultural survival, and indigenous rights.

The term ‘global interactions’ incorporates such diverse fields and agents that the buzz term itself is anything but representative of how and where it is felt. Detailed and empirical research is necessary to demonstrate when and why ‘things’ are on the move, what such movement has led to, and how we are dealing with its consequences in the present. Through such micro-studies it is possible to describe the processes that current scholars have come to group under ‘global interactions’. This is also an era in which post-colonial studies has come to rethink and destabilize certain presumed situations following colonial discourse and power relations that have led to inequalities in the world. It is within this perspective that LGI has created an interdisciplinary platform that has allowed this current study of cultural interaction in Mexico in the colonial period to take place.

This research is initiated by an interest in culture and cultural contact. The first encounters between people from the Old and New Worlds are part of a violent history of colonialism. In 1521, the Aztec leader Cuauhtemoc surrendered in the capital Tenochtitlan – in the central Valley of Mexico – following an 80-day siege by the Spanish army lead by Hernán Cortés. This event was the beginning of a period of over 500 years during which Mesoamerica was the stage of one of the most intense and continuous processes of cultural interaction. Its indigenous population suffered from European diseases that affected millions, from continued violence and from enforced changes of cultural, political, and economic circumstances. The ramifications of these events are still felt today and are reflected in ongoing discrimination and unequal rights for those of indigenous ancestry. Their position is taken as a point of departure in this study. In the present, elements of the enormously rich Mesoamerican culture (or cultures) are under daily pressure as the result of discrimination. In some case, this pressure is so great that there is genuine threat of extinction. This marginalized position of indigenous peoples, their languages, and their culture(s) is the legacy of a colonial discourse founded on the principle of making negative associations with ‘indigenusness’. But this negative perception of indigenous peoples was

often based on pure imagination and speculation, and, moreover, was formed just as much by those who were outside of the New World as those who had travelled to its continent.¹ In reaction to this state of affairs, post-colonial studies try to counteract the paternalistic tendencies of colonizer over colony and to destabilize unequal power relations posited and reinforced in a period of colonialism.

The targets of the present research are twofold. First, it aims to create a better understanding of intercultural contact of people from an indigenous and non-indigenous background in colonial Mexico through the exploration of the development of a new genre of texts in the Mesoamerican area. The argument presented is that these texts are examples of ‘global interactions’ in practice, and so reveal what such global interactions actually meant for people and objects (in this case texts) on the move.² Second, this study aims to present an appreciation of indigenous languages, texts, and readership by analyzing what took place ‘in between’ the lines of a story of destruction and loss. This will be a story of human interaction, mutual interest in cultural values, and their new products.

Izcatqui: Research Question

One product of the cultural interaction that took place in colonial Mexico can be found in the Tropenmuseum in Amsterdam, the Netherlands. It is the only original Mexican indigenous manuscript in the Netherlands. This manuscript (numbered 3523-2) of 121 folios is written in the Nahuatl (or Aztec) language spoken in Mexico and is titled after the first word to appear in its text: *Izcatqui*, or “here it is”. The Nahuatl language is spoken nowadays by an estimated 1.5 million people (Figure 1 below indicates the areas where the language is spoken, as well as the location of the city of Xalapa in the state of Veracruz where manuscript 3523-2 was located until the 1960s). According to the database of the Tropenmuseum, it is described as “an *extraordinarily important* manuscript [that] was never published or studied and [which] is a *very important* colonial item for the museum’s collection” (translation from Dutch and emphasis mine). This statement triggers the research question that lies at the heart of this thesis: what is the content of this manuscript that is classified nowadays as very important?

The manuscript is situated within a long trajectory of colonial writing. Alphabetic writing followed a history of beautifully illustrated codices that expressed a variety of themes, ranging from history and genealogy to religion and divination in Mesoamerica. Although the alphabetical system that was introduced into the pictographic repertoire would eventually take the upper hand, there was a long period during which colonial writings were characterized by fascinating hybrid forms as a way to reconcile the two systems.³ The earliest books that were produced in Mesoamerica itself in alphabetical writing were dictionaries and grammars to explain indigenous languages to non-native speakers. Alongside were books known in the Old World that travelled from Europe to Mesoamerica. Locally produced dictionaries and grammars functioned as guides in the process of converting the indigenous population to Christianity throughout the mainland. This “spiritual conquest” was described by Robert Ricard in the 1930s as a way to transform “heathens” into believers of the “true” faith. More recent scholarship has pointed out that this “spiritual conquest” was less rapid and thorough than Ricard

¹ See for excellent studies on European perceptions of the native population of the Americas the work by Peter Mason (1990) *Deconstructing America – Representations of the Other* and Karen Ordahl Kupperman (ed.) (1995) *America in European Consciousness 1493-1750*.

² In the Spring of 2013, together with colleague Dorrit van Dalen, a symposium was organized entitled ‘Canon on the Move: a Symposium on Texts and Transformation’. During this symposium, researchers working in the fields of colonial Mexico, early modern Africa, and classical Europe compared strategies and appropriations of a variety of texts.

³ This was a period in which a myriad of literary expressions in various forms were produced, as “both groups recognized the importance of writing from the very first encounters.” (Olko, 2014: 14).

thought (see, for example, Schwaller, 2000; Restall, 2003 and Tavárez, 2011) and has provided us with a more detailed and closer approximation of how Christianity was accepted, appropriated, and at times discarded by indigenous peoples. The Spanish Crown legitimated its quest for new land by legally supporting the “law of preaching” (*ius praedicandi*), by which it justified its financial support of missions and sending out missionaries. Some instrumental tools in this process were religious writings – in the form of catechisms, confessional guides, sermons, and songbooks – that were translated into indigenous languages and disseminated among the local population by missionaries (see for example Karttunen & Lockhart, 1976; Lockhart, 1992; Alva, 1999; Schwaller, 2000).



Figure 1. The only known location of Izcatqui in Mexico.
The green areas indicate where Nahuatl is spoken today and the red dot where the city of Xalapa, Veracruz is situated – the location of Izcatqui prior to its acquisition by the Tropenmuseum

Research Question: Further Specifications

The religious products of writing discussed above have been the main focus of philological studies. With Izcatqui however, a genre other than purely religious texts comes to the fore that has received less attention, but in reality, is very much part of a story of mutual interest in cultural values. In a previous study, the present author has argued that the Izcatqui manuscript is the result of translation efforts and is representative of how people saw the world around them and how they were supposed to act and live within that world (Heijnen, 2015; Wichmann and Heijnen, 2008).

By noting that Izcatqui is a product of translation, the research question of this dissertation – *What is the content of Izcatqui?* – can be further specified according to the following sub-questions:

- 1) Content: which source(s) lie at the foundation of Izcatqui? Is a reconstruction possible of how it or they were selected? In which context was Izcatqui produced?
- 2) Text: how were words converted from one language into another? Are there terms that do not exist in one of the two languages? And, if so, how is this resolved?
- 3) Cultural translation: are there signs of cultural terms and/or practices translated that are unfamiliar within one of the two cultural frameworks?

“Global interactions” as a general term for worldwide phenomena has been a frequent topic of theorization: it concerns when, where, why, and with what consequences culture contact has taken place. From the 1940s onwards, many terms have been coined to describe either the process of culture contact

or its results. To name but a few, researchers have made reference to cultural appropriation; transculturation; syncretism; hybridization; and more colloquial terms such as stew, melting pot, and potpourri have been applied more vividly to refer to the composition of a society after an initial period of contact. In this myriad of literature, the term “cultural translation” as used by Peter Burke (2007) is selected for this study as the most suitable on a theoretical level.

The idea of “cultural translation” or “translation of culture” was first described by anthropologist Bronislaw Malinowski (1884-1942). As a Polish migrant in England, he conducted fieldwork in Melanesia and claimed that “the learning of a foreign culture is like the learning of a foreign tongue”, and through his writing he tried “to translate Melanesian conditions into our own” (Burke, 2009: 55). It was not until the 1950s and 1960s, however, that the idea that the effort to understand a foreign culture resembles the act of translation was fully taken up by anthropology. According to Talal Asad (1986: 142), it was Godfrey Lienhardt (1954) who first linked social anthropology to translation in a paper entitled ‘Modes of Thought’. First as a student of and then later as a collaborator of famous anthropologist Edward Evans-Pritchard (1902-73), the notion of “cultural translation” developed in (British) anthropology into what was seen as a skill: the capacity to translate one culture in terms of the other (Asad, 1986: 142-143; Burke, 2009: 55-56). In this period, the notion was still confined to the field of anthropology and thus anthropologists’ difficulty in understanding and describing unfamiliar cultures. However, it was soon picked up by historians who came across similar issues in the periods they studied (see Burke, 2007). Nowadays, “cultural translation” is taken to be applicable to any context of cultural interaction in which foreign cultural elements are interpreted. In fact, some even consider every type of communication to be an act of translation, even when two people speak the same language.

Communication, especially across languages, often results in problems of translatability on two levels: first, the level of translating a term into another language; and, second, the translation of a cultural concept pertaining to a specific worldview that might or might not be present in the culture in which language it is described. Interlingual and intercultural translation, therefore, is a process of negotiation and renegotiation to make sense out of something that did not make sense before. Burke sees this as a process of “decontextualization” and “recontextualization” in which the foreign is appropriated first and then domesticated within a context that makes sense to one’s own culture (2007: 7-10). The advantage to theorize about cultural interaction in terms of translation is that this process is enabled only through deliberate actions of agents. Cultural interaction is thus not a state, nor the outcome, of something that would have evolved naturally (as the term hybridity suggests): it is brought about by the intentional actions of real people. Six questions proposed by Burke in his volume on translation in early modern Europe will be used in this study as well. In essence, these are very straightforward, but at times prove to be difficult to answer: ‘Who translates? With what intentions? What? For whom? In what manner? With what consequences?’ (*ibid.*: 11).

The discussion of the manuscript is placed within a context of cultural interaction between (a group of) individuals from a Nahuatl and Spanish background. In addition, I place it within a presumed period in which its thematic content was known and produced. By adding similar documents (both hybrid and alphabetic) in the Nahuatl language, I provide a chronology of the development of the genre from the sixteenth through eighteenth century. On the one hand, it becomes clear that these manuscripts are local, and time specific interpretations of European matter. On the other hand, by discussing them in chronological order it becomes possible to envision a larger tradition of writing about such matters that goes beyond these specific examples that have survived the test of time. It is an object of collection and research, but, moreover, it is an object representative of one of over 100 indigenous languages spoken in Mesoamerica (Carmack et.al., 2007: 407) of which 68 in Mexico (INALI 2015)⁴.

⁴ http://site.inali.gob.mx/Micrositios/estadistica_basica/estadisticas2015/pdf/general/general6.pdf consulted on March 22nd 2017. The number of indigenous languages is difficult to attest, depending on the selective criteria for languages families and branches

The dissertation is divided into six chapters. Chapter One discusses the manuscript's codicological information: its material characteristics and restoration, the type of handwriting used, the number of writers likely involved, and the dating of its production according to an ownership statement. This is followed by a short summary of previous research of Izcatqui. Furthermore, the content of the complete document is summarized. This summary is divided according to the themes of its content and for each theme I have added a list of the section headings and a description of illustrations that are part of each thematic section. I have done this in order to do justice to the lay-out and character of the full document as this work does not contain a full transcription.

Chapter Two provides an overview and background of a Spanish genre that was used as a source text for Izcatqui. This *reportorio* genre has been published in both Spain and across the Atlantic. By listing these *reportorios* it becomes possible to draw comparisons with Izcatqui. The aim here is to establish as accurately as possible which *reportorio* or *reportorios* were selected, read, and (in parts) translated for Izcatqui. And, consequently, to determine which Spanish source(s) were read by a larger indigenous audience.

Chapter Three is a discussion of other manuscripts in indigenous languages that include the *reportorio* genre one way or another. In Nahuatl, there are three other handwritten documents that – together with Izcatqui – span three centuries in which the *reportorio* genre was known to have been translated and/or copied into an indigenous language. This chapter also includes fragments from the Books of Chilam Balam in Yucatec Maya. These books from the seventeenth and eighteenth century are rich sources of pre-colonial Maya history, calendar, medicine, and ritual life including a form of communication in riddles, typical in highly ritualized and political discourse in the area. In addition, they also represent an intellectual desire to reconcile Maya knowledge with European traditions of the abovementioned aspects of human life. The *reportorio* genre is very clearly a source of inspiration for three of the Books of Chilam Balam. I discuss these books and compare them with Izcatqui, which was written in the same period. Within this context I consider them to be part of what Peter Burke has called “cultures of translation”.

Thereafter, I follow a thematic approach in which the content of Izcatqui is divided into three main parts. The first ten folios and their religious character are discussed in Chapter Four. Chapter Five is an analysis of the folios that treat the *tlacuiloque* interpretations of European worldview. This worldview includes the calendar, the cosmos, and astrology. Chapter Six deals with references of human interaction with nature in the form of medicinal advice, recipes and ecology and agriculture. Each chapter includes transcriptions and translations that are discussed according to the levels described above: translation in terms of content, linguistics, and culture. As a result, my methodology is, so to speak, to take apart the document as it appears in its totality and then to fit together those fragments that treat a single topic. I am aware that these topics overlap at times and that their boundaries are somewhat arbitrary. However, this exercise enables me to highlight in detail how several concepts were interpreted and explained to a Nahua audience through the efforts of indigenous authors. My study thus, moves from the broader context of a specific genre throughout the colonial period and throughout the mainland of Mesoamerica, to the details of one of its rare and exceptional examples.

(see also Carmack et. al. 2007: 407). According to Ethnologue, in Mexico there are 281 indigenous languages in the present (<https://www.ethnologue.com/country/MX>), consulted on March 22nd 2017.

Chapter One - Izcatqui

This chapter provides codicological information and discussion of types of handwriting and the presumed year of production according to an ownership statement, as well as some characteristics of its grammar. This is followed by a summary of the content of Izcatqui as a whole, before chapters Four through Six discuss the manuscript in more detail.

1.1 Acquisition and Composition

Izcatqui was acquired by the Tropenmuseum Amsterdam in September 1965. Prior to its acquisition, the manuscript had remained at the Xalapa University in Veracruz, Mexico for an unknown number of years.⁵ According to a document from the Tropenmuseum, the Nahuatl manuscript came from the area of Xalapa itself, but it is unclear whether that claim refers purely to its residency or also to the location of its original production. The manuscript is composed of a total of 121 folios and is numbered on the recto side of each folio. Not every folio is numbered though and on some occasions folio numbers appear twice. This results in the following numbering (underscored folio numbers are replicated in the enumeration): 1-69, 70, 71, 72, 73, 74, 72, 73, 74, 75-78, 79, 78, 79, 80-95, 96, 97, 98, 99, 100, 101, 102-108, 109, 1010, 101, 102, 103, 104, an unnumbered folio with an ownership statement (see below), and an unnumbered folio presenting a table with the lengths of the days of the months. So even though the manuscript contains 121 folios, its final folio number is in fact 104. This folio number appears twice, such is also the case for numbers 78, 79, 102 and 103. The reason for this repetition can only be guessed. It is likely, however, that individual contributions (see below) to the manuscript were assembled during a later stage of production, and that this is how errors in the numbering of folios came to be part of the manuscript.

The folios are bound together in a hard-cover measuring 21.3 cm in height, 16 cm in width, and 2 cm in thickness. According to the Tropenmuseum, the manuscript is composed of paper fiber products and materials of organic and inorganic origin (or European paper and ink). In some places the folios are damaged, likely due to insects (see Spitler 2005, 231) or perhaps fungi (personal communication Martijn de Ruijter 2014). The most damaged areas of the manuscript are on the outer margins of several of the folios, causing illegibility of some passages of text (compare in Figure 2 one of the most damaged folios f.1r with one of the least damaged folios f.98r).

Izcatqui is written in very clear and distinguishable handwritings (see Figure 4). Paleographic analysis by the author of the different characteristics of variation in handwriting has led to the conclusion that probably six individuals worked collectively on the manuscript. In addition, the analysis also concluded that these six individuals were working simultaneously in one single period. Therefore, Izcatqui cannot be taken to be a miscellaneous collection of documents from different periods, each added to the other under the patronship of a collector. Rather, Izcatqui must be taken to have been

⁵ Courtesy of the Tropenmuseum for providing me scans of the original documentation from 1965 as well as those from the restoration process of 1972.

intentionally produced in the form of a single manuscript. The style of the manuscript mimicked a gothic medieval manuscript (see Figure 3).

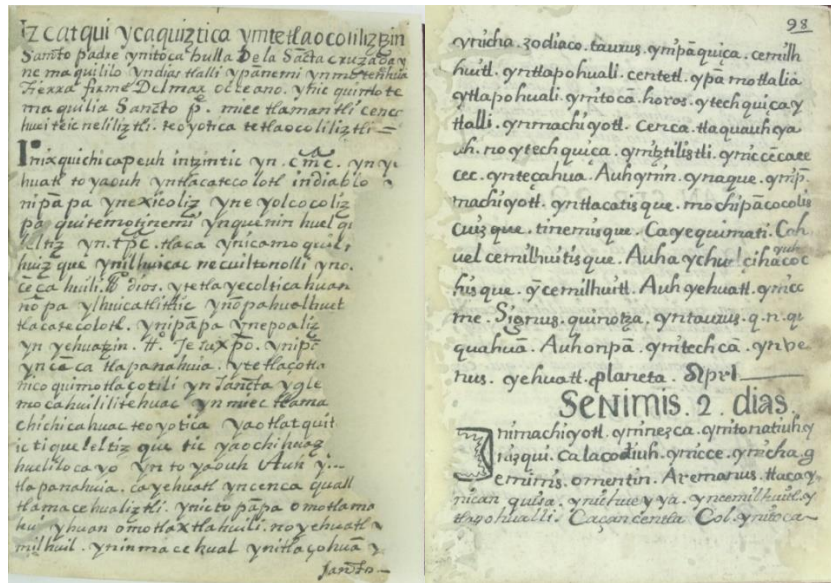


Figure 2. The largest and the least degree of damage on folio 1r and 98r respectively.

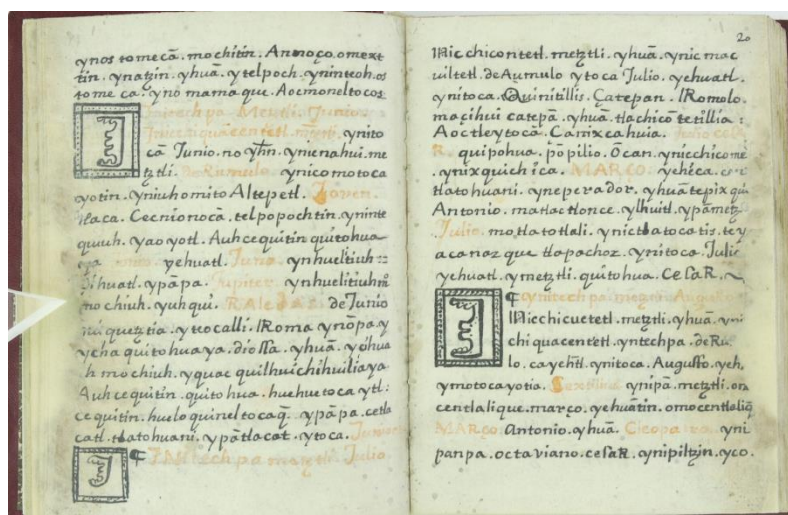


Figure 3. The use of black and red ink, as well as elaborate initials, to mimic a gothic medieval manuscript, folios 19v-20r.

1.2 Dating Izcatqui

The following two sub-sections describe two different ways to place Izcatqui in (a) moment(s) in history. The first is the physical production of the manuscript at one point in time. The second is an analysis of Nahuatl linguistics, the presence of Spanish loanwords, and grammatical constructions. The late James Lockhart proposed three stages of modifications in the Nahuatl language, according to the relative intensity of contact between Spaniards and Nahuas (Lockhart 1992). Following Lockhart, it would be arguable that the date of production of Izcatqui is not necessarily the period in which the text was translated.

1.2.1 Paleography and production

The following statement is taken from an unnumbered folio following 104r (in sequence folio 120 of a total of 121):

[f. 104v]

<i>ypan Metztl de octhobre [sic] tlapo/hua 14 de 1758</i>	It is the 14th of October in the year 1758
<i>al</i>	
<i>/ni/quitohua nehuatl felipe de santia/go</i>	I, Maestro Felipe de Santiago
<i>M[aes]t[r]o tepetlatzin</i>	tepetlatzin, say
<i>niquithohua neh/w/atl yc huelmelahuac yxpantzi/n/</i>	I say in an honest manner before
<i>/y/n t[o]t[ecuy]o⁶ dios</i>	our Lord
<i>yca nehuatl no ax/ca// /i/nin amatzintli</i>	that this book is my possession
<i>ayac huelitis y//na/macalauis</i>	no one will be able to sell it in the end
<i>quitos yaxca yes</i>	and say that it is his property

The scribe or *tlacuilo* wrote this fragment on what appears to be a rather random folio for no other clear reason than the availability of some left-over space on the page itself. The statement follows a discussion on the Roman terminology for days of the months, said to be written by a certain Juan Andrés (see below), and it precedes the final folio of the manuscript with a table containing the number of hours of daylight for each day of the year. The ownership statement itself, however, is illustrative of several things. Clearly, it is a perfect indication of when the manuscript was owned and by whom, at least at one point in time. In itself, the statement does not refer to a year in which the manuscript was made. However, its style of handwriting coincides with that of handwriting on folios throughout the entire manuscript. Considering that the different hands are not restricted to cover single folios but overlap it is safe to say that Izcatqui is not a compilation of texts written in years far apart.

Thus, we can infer that whoever was responsible for the ownership statement was working contemporaneously with the five other *tlacuiloque* in the mid eighteenth century. This would suggest that the manuscript consists of the contributions of six writers who all wrote and handed in their contribution prior to the 14th of October 1758. Second, the ownership statement refers to the identity of the owner itself: *felipe de Santiago M[aes]t[r]o tepetlatzin* [sic]. The construction of the name is puzzling – a name, *maestro*, and then another name. Felipe de Santiago is a name that appears in colonial documents from the seventeenth century.⁷ Although there is a current-day community called San Felipe Santiago near Mexico City, which may lead one to think that the ‘owner’ identified was perhaps a locality, it is most likely a personal name. For it to be a name, *Tepetlatzin* could be a combination of *tetl* (stone), *petlatl* (a woven mat or *petate*), and *-tzin* (honorific). Kartunnen translates *tepetlatl* as “a type of porous rock used in construction; someone rough, uncouth” (1983: 230). A final suggestion is that *tepetlatzin* is a toponym for Tepetlatzinco (personal communication Julia Madajczak, 2016): a political jurisdiction to the south of Tenochtitlan (central Mexico) (see Gibson, 1964: 373, 376).

⁶ The ‘o’ written in superscript.

⁷ See for example two references in the *Historia cronológica de la Noble Ciudad de Tlaxcala* by Tlaxcalan cacique Juan Buenaventura Zapata y Mendoza (2nd half seventeenth century), transcribed and translated from Nahuatl into Spanish by Luis Reyes García and Andrea Martínez Baracs (1995). In the year 1604, among several others, one major of the province (*alcalde de provincial*) is *don Felipe de Santiago* (f.19v, §216, pp. 200-202). And a baby boy is born on the 2nd of February 1665 named F[e]lipe de Sanatiago [sic] (f.47r, §316, pp. 346-347).







<i>Hand</i>	<i>Description</i>	<i>Characteristics letters</i>	<i>Folios</i>	<i>Folios uncertain</i>
# 1	Cursive; slanted; unconnected except for some		1r – 7v; 7r – 11r	
# 2	Cursive; slanted; vertical strokes have a curved appearance; predominantly connected and mainly thin strokes.		7v; 40r – 45r;	
# 3	Standing; steep; predominantly unconnected; thick strokes.		12v – 17r	
# 4	Cursive; slanted; predominantly unconnected; variety in thick and thin strokes.		17r – 29r; 30v – r; 30r; 31v – 33v	33v – 35r (could be h. 6)
# 5	Cursive; slanted; vertical strokes have a curved appearance; equally connected as unconnected; thin strokes; loops or ending of letters are colored black.		29r; 30v – r; 40v; 45r – 47r; 57v – 58v; 68v; 1 st 79v – 1 st 79r; 80v – r; 89v – 90r; 96r – 97v; 98r – 100v; 2 nd 104r – v; 105v – r; 106v	
# 6	Cursive; slanted; equally connected as unconnected; overall a large script; variety in thick and thin strokes.		36r; 47r – 56r; 58v – 68v; 68r – 1 st 79; 1 st 79r; 2 nd 79v – r; 80v; 80r – 89r; 90v – 96r; 97v – 98r; 100v – 2 nd 104v; 2 nd 104r – 105v; 106r – 109r	

Figure 4. Table of characteristics of the six hands in Izcatqui.

Nahuatl historian Domingo de San Antón Muñón Chimalpahin Quauhtlehunitzin wrote in the early seventeenth century about a great priest going to the *tlaxicalli* (district of an *altepetl* or sociopolitical entity) of Tepetlatzinco Natividas the 11th of September, 1594 to visit the church⁸ and say mass (Lockhart et.al., 2006: 18, 53).⁹ In conclusion to this statement, it is most likely that Tepetlatzin is a personal name and that Izcatqui was owned by a *maestro* (an intellectual or artist) Felipe de Santiago Tepetlatzin (personal communication Maarten Jansen, 2018).

On the same folio, immediately prior to the ownership statement, appears the name of a certain Juan Andrés. This fragment describes him as the writer of the work.

[f.104v]

[...] *ca yuhq[ui/] momachiyotilli*

oquimotlalili yn itla/tol

yc ca mahuiztililoni Juan andres/

ynic huel oquimomelauhcatlali

y/yn oquimiCuilhui [sic] [signature]

thus, it was signed

the word has settled itself

by the honored Juan Andrés

hereby he explained it

he wrote it

Although Izcatqui is written by a group of *tlacuiloque*, Juan Andrés is the only one mentioned by name. The lack of a second surname might indicate that this individual could have been an employee of a Spanish landowner. Many servants received the first name of their employer as a surname instead of a combination of the first surname of the father followed by the first surname of the mother according to Spanish naming custom (personal communication Wichmann, 2013). If this applies to Juan Andrés, then this would imply that the manuscript was written by at least one native Nahuatl speaker and not by Spaniards who had been taught Nahuatl. The ownership statement and the reference to one of its *tlacuiloque* are written in the same hand. The ink of the ownership statement though is of a lighter shade than the ink that makes reference to Juan Andrés. As a result, it is unclear – and impossible to ascertain – whether it was Juan Andrés referring to himself in third person in the fragment above or if it was someone else writing about Juan Andrés. Nevertheless, the differences in shades of ink seem to suggest that the ownership statement was added in a later phase of the manuscript’s production, perhaps even as its final addition.

1.2.2 Linguistics and Lockhart’s three phases

The introduction of a new language into an area creates a situation in which some terms cannot be translated at first, simply because particular ideas, concepts, functions, or objects do not exist within one of the two originating areas. James Lockhart’s *Nahuas and Spaniards – Postconquest Central Mexican History and Philology* (1991) is a combination of philological studies and cultural, intellectual, and literary analyses. Lockhart’s study examines how Spanish was incorporated into the Nahuatl language from first contact onwards and how it eventually affected Nahuatl grammar and sentence construction itself.

Lockhart distinguishes three stages that relate the intensity of contact between Spaniards and Nahuas to modifications in the Nahuatl language¹⁰. Stage 1 encompasses the period from 1519 to 1540-

⁸ That particular church was home to a statue of the Virgin which in the first half of the eighteenth century is said to have carried out no less than 32 miracles in less than three years before her miraculous powers ceased (Gruzinski, 2001: 208).

⁹ The name of Tepetlatzinco is also written as Tepetlatzingo in colonial documents (see Taylor, 2006: 115).

¹⁰ In his 1992 publication *The Nahuas After the Conquest* Lockhart adds a “Stage 4” (quotes are his) beginning in the second half of eighteenth century. After roughly 1760-70, close to the production of Izcatqui, indigenous

50 in which there was supposedly little contact and consequently very few changes in Nahuatl language (*ibid.*: 12). In this phase, new items that appeared in the continent were not so much described in Spanish but were fitted into existing Nahuatl terminology. For example, ‘sheep’ – an animal new to the continent – was not expressed through the Spanish word *oveja*, but constructed through the artificial extension of the fabric of cotton (*ichcatl*) to wool, and thus to the animal that bore it. Therefore, *ichcatl* came to be synonymous for not only cotton, but for wool and sheep as well (Karttunen & Lockhart, 1976: 41).

According to Lockhart, this short stage was followed by Stage 2 covering approximately the next hundred years to 1640-50. During this period, Spanish nouns were used frequently as contact between Nahuas and Spaniards increased, and Spanish words began to represent elements “that in one way or another had become a part of indigenous life” (Lockhart, 1991: 13). While the previous Stage unfamiliar items were termed by the Nahuatl closest available equivalent, by Stage 2 these equivalents were replaced by Spanish. As such, *maçatl* (deer) for “horse” was replaced with *caballo*; and a cow was no longer described as *quaquahue* (horned animal), but as *vaca*. The most frequent loan words were those that describe new plants or animals, new tools and materials, names of officers (legal and religious), more abstract Spanish concepts and procedure, and finally measurements of time, weight, and value (*ibid.*) During this period, Spanish language contact did not affect grammar to a large extent, and nouns written in the Roman alphabet were adjusted to the Nahuatl phonetic system. The letters *b*, *d*, *g*, and *r* for instance, which were not part of the Nahua sound repertoire, were omitted by a new spelling in accordance to pronunciation. Some examples are *tilico* (trigo – wheat), *xapato* (sábado – Saturday) and *coloz* (cruz – cross) (*ibid.*: 15).

Stage 3 was fully felt around the mid-seventeenth century, although its features were already apparent from the end of the sixteenth century (Lockhart, 1992: 304). Lockhart says of Stage 3 that “the language remained very much itself, but it was now permeated with elements of Spanish origin which affected grammar and pronunciation as well as lexicon” (Lockhart, 1991: 15). By now not only Spanish nouns had been incorporated in documents (at times replacing the earlier Nahuatl equivalents), but also verbs – albeit in a much lower frequency. Some of these verbs have even settled into the Nahuatl language up unto today as combinations of the Spanish infinitive plus *-oa*, the native verbalizing element (Lockhart, 1992: 305-308; Karttunen & Lockhart, 1976: 29-35). According to Lockhart, the high frequency of Spanish words throughout documents produced in the Stage 3 period indicates that this permeated, hybrid language had become almost a second language for the large group who had learned Nahuatl as their mother language (Lockhart, 1991: 15). So far, we have seen that nouns and verbs were directly or in a slightly modified manner incorporated into Nahuatl vocabulary. During Stage 3 conjunctions and prepositions such as *para* and *hasta* began to appear in Nahuatl documents. Furthermore, Spanish expressions began to be copied into Nahuatl. For example, the verb *pia* – “to hold, to guard” – took over the use of the Spanish verb *tener*. In this instance, *quipia chicuey xihuitl* (lit: he guards eight years) came to signify “he is eight years old”, similar to the Spanish phrase *tiene ocho años* (*ibid.*: 17). By 1700, the final development in this Stage occurred with the expansion of the phonetic system as Nahuas learned to pronounce the sounds that they had omitted in the second Stage (Lockhart, 1992: 315).

Figure 5 provides an overview of all the Spanish loanwords in Izcatqui, grouped according to subject matter. For this short initial analysis, Izcatqui’s loanwords have been compared to Karttunen and Lockhart’s inventory of Spanish loanwords in over forty Nahuatl documents in the period 1540 to 1738 (1976: 53). Those loanwords that are followed by the year of production in brackets are: *xpianoyotl* [1560], *bulla*, *yndulgencia*, *papa* [1570], *apostol* and *yndias* [1607-1629] (1976: 60, 62, 65). According

writers began to produce texts in Spanish in significantly growing numbers. The corpus that Lockhart studied seems to suggest that the *tlacuiloque* retained elements of Nahuatl grammar in their Spanish texts (Lockhart, 1991: 318-323).

to Karttunen and Lockhart, it was by the year 1545 that the Spanish names for the days and months of the Julian calendrical year were copied as well (1976: 53). This small exercise shows that even though the manuscript was composed in the eighteenth century, its content was, in parts, known two centuries prior. It is not surprising, then, that the similarities in loanwords are from a religious and calendrical context, as both religion and the calendar were introduced into Mesoamerica early on in the colonial period.

Subject matter	Spanish loan word
Religion/liturgical calendar	santo padre, bulla de la Sācta cruzada, diablo, dios Jesuxpō, catholica Romana, xpianoyotl, apostol, papa, yglesia, yndulgētia plenaria, Santo Jubileo, obispo, glerigos, Missa, Monasterios, Sacramento De laucha, pasqua, descomonio, quaresma, Altar, castidad, purgatorio, Espiritu, amen, purification, exaltacion, dedicacion de la yglesia, rremission de los peccados, reuelacion, consecracion del saluador, quatro temporas, septuagesima, quagesima, letanias mayores, virtudes, açension pentecoster, mitos, Signostin y666
Place indicators	tierra firme Del mar oceano, Salem, Jerusalem, babilonia, Judea, Alexandria, Egipt, Castillan, meçionales, septendrionales, Jhierusalem, Toledo, Barcelona, Sevilla
Plants, animals, & food	cidras, limones, granadas, açogar, naraias, pimiēta, mostraça, cominos, rabanaos, cebollas, ajos, ronda, yazafan, chilli, pepinas, limas, coles, perales, menbrillos, torazonos, mançanos, rauanos, lechocas, trigo, melones, platanos, Artemesa, centauro, cabra, carnero, vinagre, Sancria
Celestial bodies/astral occurrences	planetas, Sol, Luna, Mars, Mercurio, Jupiter, Venus, Saturnus, estrella, Signus, çodiago, Aries, Taurus, geminis, Cancer, Leo, virgo, libra, Scorpius, sagittarius, capricornius, Aquarius, piscis, conjuciones, oposiciones, llena, eclipse
Measurement of time	minutos, hora, dia, semana, mes, anno, tiempo, domingo, lunes, martes, miyercors, jueves, fiernes, sabbato, medianoctis, enero, febrero, março, aprilis, maio, junius, julius, agosto, setiembre, octubre, nobiembre, deçiembre, berano, yvierno, Aureus Nomerus
Body parts	muellas, pincas, pruenas, circular
Personal titles	papa, cavalleros de las ordenes militares, cōmadre, cōpatre, emperadoresme, obispo,

	opisbome, astrologosme, filosofostin, doctoresme, glerico, sacerdote
Artifacts	tigeras, cochillo

Figure 5. Table of Spanish loanwords in ms 3523-2, according to subject matter.

Spanish words in ms 3523-2 are explained by the *tlacuiloque* by choosing the closest Nahuatl equivalent for a Spanish word. Whenever we read [...] *ytoca* [...] or *quitoznequi* (“its name” and literally “it wants to say” or “it is” respectively), a Spanish term is translated into Nahuatl (or vice versa). An illustrative example from folio 106v is as follows:

[f.106v]

Anno yntoca xihuitl

mes ytoca¹¹ metzli

Semana yntoca chiconilhuitl

dia ytoca ylhuitl

obacentlaco machio/tl nanauhcan

memento yntoca canixō/chcahuitica¹²

tie[m]po yntoca hue/...¹³

Anno (año/year) is named xihuitl

mes (month) is named metzli

semana (week) is named ‘seven days’,

día (day) is named ilhuitl

half a sign is in four places

memento is named ‘the leaving of the flower’

tiempo (time)

is named [something old of age]

Izcatqui discussed the twelve Zodiac signs on several occasions and the *tlacuiloque* chose four tactics to describe them. The first is a direct copy of the name as they have in the Latin world; the second is a description of the physical appearance of the sign in Nahuatl; the third is a description according to its closest equivalent in Nahuatl and the fourth is the physical description of the sign in Spanish accompanied by their description in Nahuatl (see Figure 48 in Chapter 5). The fourth tactic is used for only three Zodiac signs, Aries (*carnero*), Sagittarius (*cahuallo*, *centauro*) and Capricorn (*cabra*). Most of the other Zodiac signs are animals or concepts familiar to the Nahua reader in the Nahuatl language itself. The ram, horse, and goat are not native to Mesoamerica; however, it is likely that these would have been known by a Nahua readership – as would the Spanish loan word denoting them – by the time Izcatqui was produced in the eighteenth century. It is curious that Leo (depicted by a lion, a non-native animal in Mesoamerica) is only described through its closest Nahuatl equivalent, *ocelotl* (jaguar), and not by the Spanish *león*. Taurus (bull) is only described as *quaquahue* (one with horns). This description apparently sufficed, because *toro* was left out as well. Interestingly, Lockhart mentions that during Stage 2, *vaca* pushed *quaquahue* into the specialized meaning “ox” (Lockhart, 1992: 279-80). If this is correct,

¹¹ Within three lines we find three versions of the word: *yntoca*; *ytoca* and *ytoca*. *Yntoca*, as frequently as it is used, in itself is a strange construction. *Tocaitl* is ‘name’ and *yn tocaitl* would read as ‘the name’. *Tocaitl* in a possessed form loses its absolutive, so becomes *toca*. However, when it is combined with a possessive prefix it is never *yntoca*, but *itoca* ‘its name’.

¹² *xōchicahuitica*. This translation is problematic and the following are just mere suggestions. A possibility is that it is composed of *xochitl* ‘flower’, *cahua* ‘to leave’, followed by ligature *-ti-* and the auxiliary verb *-ca* ‘to be’. This then would be ‘the flower is leaving’. I have not found similar words for ‘memory’ in the dictionaries consulted. Perhaps it is composed of *xochi* ‘flower’, *cahuitl* ‘time’ (‘flower time’) and ligature *-ti* plus relational *-ca* ‘by means of’. The translation however, remain inconclusive.

¹³ In Karttunen’s dictionary, the word for ‘time’ is *cahuitl* (1983: 21). Here, the authors have chosen a word that indicates the old age of the subject matter: *huecauh* ‘a long time; something old’ [this word does not fit the space left on the right margin of the page though] or *hueca* ‘far away’. It is clear though that the authors have used a construction that not just refers to ‘time’ in general, but to something that has history.

then it suggests that the Nahuatl of the manuscript was written in the earlier years of Stage 2, in which *quaquahue* still indicated all animals with horns and not just oxen. And there is another argument that suggests the same conclusion. The *tlacuiloque* use two tactics to describe Sagittarius: naming it by its closest Nahuatl equivalent, *maçatl*, and by its Spanish loanword, *cahuallo*. During Stage 2, *maçatl* is ‘passé’ and replaced by *cahuallo* (Lockhart, 1992: 293). However, the fact that both *maçatl* and *cahuallo* appear in Izcatqui seems to suggest that its readership was in the transitional phase of knowing a horse both by reference to the name of the indigenous animal that looked most like a horse and by reference to its Spanish name.

There are some fusions of Spanish nouns and Nahuatl suffixes that are not uncommon in Nahuatl colonial writing. The first fusion is a combination of a Spanish noun with the Nahuatl indication of the plural form. In Nahuatl, the plural is formed by adding either *-tin*, *-mê* or *-^* (glottal stop) to a noun minus the absolutive *-tli* or *-tl* (the affix depends on whether or not the stem-ending is a consonant or a vowel). In Izcatqui, there are several examples of *-tin* and *-mê* following a Spanish noun, for instance, *emperadoresme*, *astrologosme*, *philosofostin*, *doctoresme*, *opisbome*, *Signostin*, and *carnerome*. On folio 68v, such a composition was made as well, but this time it was ‘corrected’ by the *tlacuilo* who crossed out the *-me* of *letrasme*.

There is another situation in which Nahuatl and Spanish morphemes are combined in Izcatqui. There are two examples in which the Nahuatl suffix *-yōtl* is combined with a Spanish word. The *-yōtl* suffix is placed after a noun before its absolutive to turn a concrete noun into an abstract one. The first example is *xpianoyotl* [f.2v], a combination of the Spanish term *cristiano* (a Christian) and the abstract suffix *-yōtl*. Such a suffix will turn the noun “a Christian” into the more general concept of “Christianity”. The second example is *Castillanayotl* [f.48v], comprised of *Castilian*, an extra *a* to facilitate pronunciation, and *-yōtl*. *Castilian* is the naturalized form of *Castilla* and was used to express the Nahuas “perception that introduced items shared defining characteristics with items already known and their awareness of the Spanish items’ newness: thus, wheat was *Caxtillan centli*, “Castile maize”” (Lockhart, 1991: 13). In this case, it could have sufficed to simply use the term *Castilla* to indicate Castile, but instead the naturalized form was combined with the abstract suffix to refer to Old Spain. So even though there are only two examples of *-yōtl* and a handful of plural suffixes, this does indicate that whoever wrote those particular fragments found it either necessary or self-evident to clarify the meaning of the words by using a Nahuatl suffix.

Returning to my overarching analysis of the results of this initial inventory, it can be said that Spanish nouns were used frequently in ms 3523-2. These Spanish nouns are either explained directly through a translation in Nahuatl or by providing its closest equivalent, facilitating reader interpretation, and offering cues about how to relate the new items and concepts of the Spanish realm to objects with which the reader was already familiar. The analysis above provides us with good reasons to hypothesize that the source texts for Izcatqui were written in a period during which Nahuatl was still the primary language of the area but was soon to be complemented on a large scale by Spanish. The Nahuatl suffixes combined with some of the Spanish terms indicate that it was either felt necessary to clarify these new terms with Nahuatl grammar (even though the new language did not use such incorporations) or that these fusions were made out of familiarity of the writer, and ‘went without saying’. Taking in consideration the frequency of Spanish nouns and the ease with which they are used, the categories and spelling of these nouns according to Nahuatl phonetics, and the lack of Spanish verbs in use throughout the manuscript, I can now derive a first conclusion about 3532-3. My claim is that assuming Lockhart is correct in saying that modifications to the Nahuatl language occurred in the three stages relating to the relative intensity of contact between Spaniards and Nahuas, then the evidence indicates that the origin of the source texts of ms 3523-2 must have been the early years of Stage 2, i.e. the second half of the 16th century.

1.3 Previous study

In this sub-section, I will shortly summarize existing references to ms 3523-2. The specifics of each reference will be discussed in detail in later thematic chapters. The oldest published reference to ms 3523-2 to date is the work by Ferdinand Anders and Maarten Jansen: *Manual del Adivino – Libro explicativo del llamado Códice Vaticano B* (1993: 93-96). This pre-colonial codex is located in the Vatican Library and is officially named Codex Vatic. Lat. 3773. A thorough study by the same authors of the colonial codex known as Vaticanus A (Codex Vatic. Lat. 3738) followed in 1996 and is of importance here as well. The time of composition of the pre-colonial codex Vaticanus B is difficult to determine; but Vaticanus A was dated by Anders & Jansen somewhere around 1565 in accordance with their paleographic studies.

In their study on codex Vaticanus B, Anders and Jansen discuss two important illustrations: a male figure surrounded by Zodiac signs and planets from ms 3523-2 on folio 59v (Fig. 2) and another male figure surrounded by the 20 day signs of the Mesoamerican calendar in Vaticanus A (Fig. 3).¹⁴ Illustrations of the Zodiac Man appear in abundance in medieval manuscripts in Europe, and portray the twelve Zodiac signs in relation to different body parts and organs, starting with Aries at the head and ending with Pisces at the feet. In Chapter Six, I will explain in detail the well-spread use of these images and how they were known and interpreted in a colonial context in Mesoamerica (cf. Anders & Jansen 1993; 1996).

David Eduardo Tavárez published an essay containing three case studies in 2000, which is available on the website of the Foundation for the Advancement of Mesoamerican Studies (FAMSI). This essay was incorporated in his later book, *Invisible War*, published in 2011. These case studies were chosen to study “the production and circulation of native ritual and devotional texts in colonial Central Mexico between 1614 and 1656” (Tavárez, 2000 FAMSI: introduction). Tavárez argues that the period 1614-1656 was crucial, because it was during this period that writing in the European alphabet was no longer preserved for legal and community purposes only, but reached the fields of ritual and divination as well. Ritual texts are defined by Tavárez as having specific divination or propitiatory purposes, and it was for this reason that they also incorporate calendrical documents and incantations. This definition of divinatory texts, however, is restricted to only those texts that were written by/for Christians who were intent on conducting themselves piously in the privacy of their own home, in order to fortify their relation with a Christian spirit (*ibid.*). One of the case studies Tavárez uses to support his thesis is that of Fonds Mexicain 381 (Bibliothèque National de France, Paris). Part of the content of this miscellaneous manuscript is very similar to Izcatqui (see Chapter Three). In fact, Tavárez refers to ms 3523-2, comparing a small portion of their content with Fonds Mexicain 381 in order to sketch a historical context in which specific European sources circulated in colonial Mexico in an underground fashion (Tavárez, 2011:138-9).

In 2005, Susan Spitler obtained her doctorate from Tulane University with her PhD dissertation entitled, *Nahua Intellectual Responses to the Spanish: The Incorporation of European Ideas Into The Central Mexican Calendar*. In her research, she organizes a large variety of colonial documents on the topic of time reckoning that reflect their interpretation from an indigenous and Spanish audience. Included within her chapter *Central Mexican Renderings of the European Calendar* (pp. 184-237), we find the Tropenmuseum document as well as Fonds Mexicain 381 and Codex Mexicanus (see further Chapter Three). In addition, Spitler provided a table of content for Izcatqui and the corresponding pages of one of its Spanish sources. The table is quite precise although some “unidentified passages” do appear (see her table on pages 232-3). The amount of transcribed and translated folios, however, is restricted only to folios 12r-15r, 59v, and half of 60r.

¹⁴ The second of these illustrations is discussed in more detail in their work on Vaticanus A (Anders & Jansen, 1993: 93-106; 1996: 245-7).

The common denominator in the studies above is that although they were interested in related sources and even Izcatqui itself, they never attempted to explain Izcatqui from cover to cover. Instead, elements were selected to prove a point in a wider context and to corroborate a particular idea. For this current study, therefore, there remains plenty of room to discover new features about the manuscript.

1.4 Contents in summary

Before I try to answer any questions as to which Spanish text(s) was/were translated in Nahuatl and why, I must first deal with the question as to what Izcatqui actually says. As each of the following chapters discusses the subject matters in more detail, I will now briefly provide a summary of each thematic section of Izcatqui. I include sections headings and images, if present, for the reader's convenience.

1.4.1 Summary of themes present in Izcatqui

Folio ms 3523-2	Subject	Content
1r-11r	Religion	The text commences by introducing an important ideological event in the history of the evangelization of the Americas: the extension of the papal bull, 'The Holy Bull of the Holy Crusade', to the Indies by the Holy Father. The name of this Holy Father is disclosed as Gregory XIII on folio 2r. The text then explains that through this Holy Crusade (the year in which it was extended, 1573, is not given in the text) a great and divine mercy is to be granted to the people of the Americas (<i>indias tlalli</i>). In addition, the text informs the reader that the concepts of Sancto Jubileo and Indulgencia Plenaria are applicable to believers in this part of the world as well from the extension of the Bull onwards. Thus, the text makes clear that anyone following God and the Holy Father is able to be pardoned from sins in specific periods throughout the liturgical Christian calendar. An extensive list of days and periods of pardon is provided on folios 7r to 9v. These folios function as an introduction for the writer and reader to a Christian religious world. The final folios (f.10r-f.11r), however, are a practical guide to the Liturgy of Hours or fixed prayers during the day. Here, three titles of prayers are listed (Paternoster, Ave Maria, and Credo – headed as matins). These prayers are followed by an adaptation of Christian narrative into Nahuatl and a set of instructions about how, in this indigenous language, one should approach the most sacred in Christianity, God, and Jesus Christ.
12r-22v	Calendar	The division of time – year, month, week, day, and hours of the day – of the Western calendar (Julian and later Gregorian) is explained. This is intended to represent the creation of order in a period of chaos and darkness after light. A short history of several Roman emperors is recalled – Antonius, Octavianus Caesar (Augustus), Julius Caesar, Claudius Nero,

		Dominicanus – to give shape to the idea about when the first Roman calendar was invented.
22v-35v	Cosmography; astrology; astronomy	This section is focused on astrology and relates the days to the planets and the planets to the nine skies. Furthermore, the Zodiac signs are introduced shortly, and a description is given of the faith and appearances of those born under a particular planet. A diagram of the <i>reloj de noche</i> (clock of the night) is illustrated and explained. This diagram would aid the reader in extrapolating the time at night throughout the year according to the position of certain stars in the sky.
36r-46v	Astrology	In this section, the Zodiac signs are commented on in detail; their characteristics and the characteristics of those of people born under a particular sign and the planet associated with a Zodiac. This section is concluded by a table that relates the four elements (fire, wind, earth, and water) to three Zodiac signs each.
46v-53v	Calendar; health; agriculture	This section introduces a time reckoning of the twelve months of the Gregorian calendar. Each month is discussed for its number of days and nights, and for the agricultural activities that should be carried out. In addition, the reader is informed about general health issues that are prone to manifest themselves during these months (independent on the ruling Zodiac sign).
54r-55r	Calculation liturgical calendar	The term Aureus Numerus cycle is mentioned for the first time, alongside the year DCMDlxii – a year that does not exist (see page 66 for an explanation of why the <i>tlacuilo</i> made a mistake). The fictive year is said to be the fifth year in the 19-year cycle of the Aureus Numerus. It does not, however, explain what such a cycle is. Moreover, a further unexplained table is introduced. In the upper row this table lists the numbers 1 to 19 (the Aureus Numerus) and from top to bottom the twelve Zodiac signs (each appears either twice or three times). In this table, each column lists the sequence of the letters of the alphabet (the ‘j’ is omitted though, and the ‘s’ appears twice), and both an ‘&’ and an ‘Á’ also feature. Each cycle (or each year) starts with a different letter. This table would aid the reader to find the corresponding Zodiac sign in which the moon resides for each day of the year.
55v-65r	Health (Zodiac Man)	This section begins with an advice for humanity on how to live in purity while at the same time warning people. If its advice is not followed, a final judgement will cast its hurtful fire. It describes 12 virtues that need to be lived by, and love for one another is stressed as being of great importance. This text precedes an introduction to an illustration of an undressed man seen from the front. There are seven planets drawn on the left margin of the folio. Each of these planets are connected to body parts of the man. In the same manner, the

		Zodiac signs appear on the right margin of the figure and linked to other parts of the man. The text that follows the illustration explains whether or not the months corresponding to the Zodiac signs are “good” or “not good”. It explains which planet effects which part of the body or organ without an explicit positive or negative association; this stands in contrast to the Zodiac signs and their influence on the human body. The final part of this section includes drawings of two vein men (one seen from the front and the other from the back). The accompanying text explains the reader from which vein one should let blood in case of a particular (medical) condition or ailment.
65r-67v	Cosmography; health	This section undertakes a discussion of four winds (coming from the North, South, East, and West), their characteristics, as well as their positive or negative influence on the health of people. This discussion includes a drawing of a T-O map including the names of Europe, Africa, and Asia, and the names of the four winds. Particular days or months are said to be ruled by one of the seven planets and certain conjunctions of planets signify whether or not an illness is prone to manifest itself.
67v-74v	Alguarismo	The <i>cuenta del alguarismo</i> and the Libro Lunario are explained in this section by reference to Sancho de Salaya (editor of a <i>reportorio</i> in 1542).
72r-78v	Astrology; health	Here we find yet another discussion of the months and their corresponding Zodiac signs. This is followed by the illnesses that can occur under the influence of one of the twelve signs. An incomplete note on the planets that govern each hour of the day and the night is provided at the end.
78v-82v	Health; agriculture	The next section refers shortly to the blood vessels again. The main part contains information of an agricultural nature. It provides advice on what to sow and harvest during each of the twelve months.
83r-86v	Calculation liturgical calendar	Here we find different tables that indicate the relationship between the planets, months, Zodiac signs, elements, the Aureus Numerus, and the Dominical Letter. These tables also include references to mnemonic devices (a verse in this case, cited with the help of the phalanxes of the hand) to calculate the Dominical letter.
87r-96r	Health	A medical commentary that begins with a list of the twelve Zodiac signs and what to eat or not to eat when you have fallen ill (such as milk, cheese and reed) is provided. This is followed by a list of the seven planets, a short description of how each is related to Classical deities, and an account of how they each play a role in illness and death. Thereafter follows a list of twelve conditions and ways to cure them, several of them using the herbs <i>artemisia</i> and <i>cardo bendito</i> . The final

		medicinal text of Izcatqui is a list of different therapies attributed by one of four healers or physicians (<i>estos maestros de doctores</i>).
96r-107v	Astrology; calculation liturgical calendar	This section presents the twelve Zodiacs again. Here we find, for the first time, an explanation in text of the Aureus Numerus cycle and the Dominical Letter. The text is accompanied by 2 diagrams as mnemonic devices and a table that relates the planets to the months, days, Zodiac signs, and elements.
108v	Mathematics	This section includes a <i>tabla cuenta de quarismo [guarismo]</i> . The numbers in Arabic two to ten are listed on the left and are multiplied by that exact number up to number ten further to the right. So, for instance, number two is multiplied by two, three, four etc. up to ten; and Number eight is multiplied by eight, nine, and ten. Some outcomes are incorrect.
109r	Mathematics	A table <i>tabla de cuenta de castellano</i> which mathmatically is the exact same table as the one on the preceding folio, however this time in Roman numerals.
109v	Astrology; health	Yet another table with the Zodiac signs and their good, bad, or indifferent effects on purging and bloodletting.
1010r-102r [110r-112r]	Astronomy	This section lists the Zodiac signs, this time not for their astrological, but instead their astronomical, significance.
102r-104v [112r-114v]	Calendar	Here we find an explanation of the kalendas, nonas, and ides – a Roman division of the month.
104v [114v]	Presentation writer and owner of ms	In this section, Juan Andres is appointed as writer; an ownership statement is given by which Maestro Felipe de Santiago Tepetlatzin is said to be the owner of the document on the 14 th of October, 1758.
unnumbered folios [115v-116r]	Calendar; astronomy	A table that lists the hours and minutes of daylight for all the days of the year (without any mention of the area of the world in which it would be applicable).

Figure 6. Table of content of Izcatqui according to theme.

1.4.2 Listing of section headings

These section headings have been chosen somewhat arbitrarily, as they often do not appear as section headings per se in the manuscript. However, I have chosen those lines that clearly introduce a new discussion in ms 3523-2 for means of clarity. Terms in the manuscript that are written in red ink will appear in the same color below, and I have added an English translation for ease of reference.

<u>Folio</u>	<u>Section title</u>	<u>English translation</u>
9r	nican ca yn Estaciones ¹⁵	here are the Stations
10r	Maytines	Matins
12r	Nican opehua	Here begins

¹⁵ The first eleven folios do not include such a clear structure as the following pages from f.12r. According to Raul Macuil Martínez, this is likely to do with how the text came to be. The hypothesis of Macuil Martínez is that this introduction was dictated through speech to the *tlacuilo* and not copied directly from a text.

17v	Reportorion quitoznequi	the Reportorio, that is
18v	initechpa metztli abrilis	in the month of April
19v	INITEHPA METZTII MAIYO	in the month of May
20r	Initechpa Metztli Junio	in the month of June
20v	ynitechpa metztli Augusto	in the month of August
21r	ynitechpa metzetli Setiembre	in the month of September
21r	ynitechpa metztli October	in the month of October
21r	ynitechpa metztli nobieber	in the month of November
21v	Initechpa metztli Deziebre	in the month of December
22v	TLATLANI ITEMACHTIANI.	ask the teacher
	TLE[N] quitoznequi Semana	what is the week
23v	/.../tlatlani yntemachtiani	ask the teacher
	tley/quitoznequi/qui planetas	what are the planets
24v	tlatlani ytlamatini tle	ask the teacher
	yquitoznequi ynihuicatl	what is the sky
25r	ynic centlanepantli ynihuicatl	the first in the middle of the
	ynihuicatl y	sky [the sky]
	chicome ynplanetas Ehuatl	the seven planets
	ynluna	is the moon
26r	Inic o[m]tlatmatli ynihuicatl	the second sky is
	yehuatl/ Mercurio ynic	Mercury, the sixth [of the]
	chiquacen tlatmatli /plane/ tas	planets
27r	Iniquetlamatli ynihuicatl yhuan	the third sky, and the fifth
	ma cuili planetas yehuatl yn	planet is Venus
	Venus	
28v	Inic nauhtlamatli ylhuicatl	the fourth sky
	yh[uan] yc na uh tlatmatli	and the fourth [of the] planets
	planetas ca yehuatl ytonatiuh	is the sun
	ynitechca Sol_	it is Sol
29v	Inic macuillamatli¹⁶ ynihuicatl	the fifth sky
	yntoca mars	is named Mars
	yehuatl yniq[uei]tlatmatitica	it is the third [of the] planets
	planetas	
30v	Inic chiquacentlamatli ylhuicatl	the sixth sky
	ca yehuatl ynicome planeta	and the second planet
	ytoca Jupiter	is named Jupiter
31v	Inic chicontlamatli ylhuicatl	the seventh sky
	yehuatl: ynitoca SATURNOS	is named Saturn, the first
	yceplanetas	planet
36r	Tlatlani ytemachtiani	ask the teacher
	tlenquitoz nequi yn Signus	what is the sign
38v	Aries	Aries
39v	Taurus	Taurus
39r	Geminis	Gemini
40v	Cancer	Cancer
41v	Leo	Leo

¹⁶ should read ‘macuil tlama[n]tli’

42v	Virgo	Virgo
42r	Libra	Libra
43v	Scorpius	Scorpio
44v	Sagittarius	Sagittarius
44r	Capricornus	Capricorn
45r	Aquarius	Aquarius
46v	Pisces	Pisces
47v	Nican ompehva inhaleindario: inhrtia pohualiztli	here begins the calendar the count:
47v	Enero	January
47r	Pebrero	February
48r	MARÇO	March
49v	Aprilis	April
49r	MAIO	May
50v	IVNIO	June
50r	IVZIUS	July
51r	agusto	August
51r	September	September
52r	October	October
53v	Noviembre	November
53r	Deciembre	December
55v	NICAN MOCAQUIZ in itlatollo	here it will understand its history
60v	izcatqui planetas	here are [the] planets
65r	Iniccentlamatli yn ehecatl	the first wind
66v	Inicontlamatli Ehecatl	the second wind
66v	Inichetlamatli yn Ehecatl	the third wind
66r	Inicnauhtlamatli ynehecatl	the fourth wind
72r	AQVICOMIENCA novimiento lus Enero	here begins [movement] [...] January
72r	de febrero	of February
73v	de MARÇO	of March
73r	de APRIL	of April
73r	de MAIO	of May
74v	DE IONIO	of June
74v	DE IVLIO	of July
74r	DE AUGUSTO	of August
74r	DE SETIENDRE	of September
75v	DE OCTOBRE	of October
75r	DE NOVIEMBRE:	of November
76v	DE DEZIEMBRE:	of December
76v	MALAS	Illnesses
76r	de lus quales planetas: jubiter et benus buenes: saturnus mars malos sol: et luna medians mercur/io//	of what planets Jupiter and Venus good Saturn, Mars bad, Sun and Moon amidst, Mercury

	buenos buen oculos ¹⁷ ma././	good, good [...]
76r	malo ¹⁸ : 1	1. illness
77v	MLAS taurus ¹⁹	2. illnesses Taurus
77v	3 GEMNS MALAS	3. illnesses Gemini
77r	4 MALAS Signus cacer	4. illnesses [of the] sign Cancer
78v	5. MALAS leonis yeilhuatl	5. illnesses Leo three days
78v	6. MALAS Virgo omilhuatl	6. illnesses Virgo two days
78r	7. MALAS libras omilhuatl	7. illnesses Libra two days
78r	9 ²⁰ . MALAS Corpi9	8. illnesses Scorpio
<u>79v</u>	9. malas s[a]gittarius	9. illnesses Sagittarius
<u>79r</u>	10. capricurnus lasmalas 2	10. Capricorn illnesses 2
<u>79r</u>	/11./ MALAS. Aquarius 2	11. illnesses Aquarius 2
2 nd 78v	12. MALAS piscis 312	12. illnesses Pisces 3
78r	Nican yn achcto ²¹ quipehualtia yn mala	here it makes it begin the first illness
78r	Nota de los planetas que reyna cada hora entre dia et noche	note on the planets that rule each hour between day and night
78v	Nican ycuiliuhtica yn isqui ²² totlalhuayo totechca ²³ yhuan yn iuh titopatisq[u]ez Techcocohua	here it is going to be written, [of] all the nerves our stone and you will cure yourself [when] it sickens us
83r	yzcatqui tapla ynic yximachoz yn aq/ui/ quiximatisnequi yehuatl Rale[n]dario	here is the table so that it may be known who may it be known, the Calendario
84r	Nican pohualo yn izqui Signus	here the count of all signs
85r	Litera dominicalis	Dominical Letter
89v	Nican oqvicaco yn machyyotl ²⁴ necoloz Nican icvilivhtica In pla/netas/ yn totlacatiliz	here appears the sign, it will [?] here it is going to be written the planets that will give birth to us
89v	Sol	Sun

¹⁷ The text itself is as follows: ‘bueno.culos.’ [good buttocks] but it could have been an error by the *tlacuilo* and perhaps it should say *buen oculos*. An oculus is an architectural feature of a building such as the Pantheon in Rome. The oculus (Latin for ‘eye’) is a hole in the ceiling, allowing sunlight to enter the structure from above.

¹⁸ Literally *malo* should be translated as ‘bad’. However, according to the content of the fragments, I have decided to translate it as ‘illness’.

¹⁹ The number two is written above the word ‘taurus’.

²⁰ Read ‘8’.

²¹ Read ‘yn achto’.

²² This is the start of a new handwriting up to folio 79r and this *tlacuilo*’s orthography includes the letter ‘s’ more times than that of other *tlacuiloque*. So ‘izqui’ becomes ‘isqui’; ‘quiza’ becomes ‘quisa’.

²³ According to Molina [1571], *techcatl* is ‘piedra sobre que sacrificaban y mataban hombres delante los idolos’. I highly doubt the text refers to such a sacrificial stone, instead it could refer to a stone that is used for curing in Mesoamerica.

²⁴ Read ‘machiyotl’.

89r	2. LVNA	2. Moon
90v	3. MARS	3. Mars
90v	4. Mercuriu/s/	4. Mercury
90r	5. Jup/iter/	5. Jupiter
91v	6. VENVS	6. Venus
91r	7. SATVRN9	7. Saturn
91r	nican pehua centlama[n]tli	here begins the first
91v	Nican motenehuan	here is named, all things
	ynisquitlamatli ynitoca patli	named cure, Cardo Bendito,
	Carto bendito Artemesa Rota	Artemisia Rota Arbabo (?) ²⁵
	Arbabo	
93r	yzcatqui yn qu/ue/nin motocaz	here it is is, how it will be sown
94v	ca yzcatqui: nica[n] pehua	here it is: here begins another
	occentlamatli	thing
	yn quenin nepatilo	how to cure oneself
<u>96r</u>	tlaneltiliztli yn izca	the search for truth, take the
	macchiyotl ²⁶ :	sign
<u>97v</u>	Taurus 2 duos dias	Taurus 2 days
<u>98r</u>	Geminis 2 dias	Gemini 2 days
98v	CANCER 2 dias	Cancer 2 days
98v	LEO 3 dias	Leo 3 days
99r	VIRGO 2 dias	Virgo 2 days
99v	libra dvos dias	Libra 2 days
99v	Scorpius 2 dias:	Scorpio 2 days
<u>100r</u>	Sagittarius 3 dias	Sagittarius 3 days
<u>100v</u>	capricornos 2 d[ia]s	Capricorn 2 days
<u>101r</u>	Aquarivs 2 dias	Aquarius 2 days
<u>101v</u>	Piscis 3 Dias:	Pisces 3 days
106v	DE LA SEMANA	of the week
107v	Siguese los planedas ²⁷	follow the planets
<u>1010r</u>	Del Signo de Aries T. 25	of the sign Aries T 25
<u>1010r</u>	Del Signo te ²⁸ tauro T. 26	of the sign Taurus T 26
<u>1010r</u>	del Signo de gemini T. 27	of the sign Gemini T 27
<u>1010v</u>	del Signo de cacer T. 25	of the sign Cancer T 25
<u>1010v</u>	Del Signo de leo T. 29	of the sign Leo T 29
101r	del Signo de virgo T. 30	of the sign Virgo T 30
101r	del Signo de libra T. 31	of the sign Libra T 31
101r	del Signo de Scorpione T. 32	of the sign Scorpio T 32
101v	del Signo Sagitari9 T. 33	of the sign Sagittarius T 33
101v	del Signo de Capricornio T. 34	of the sign Capricorn T 34
101v	del Signo de Aquario. T. 35	of the sign Aquarius T 35
102r	del Signo de pisces T. 36	of the sign Pisces T 36

²⁵ Maybe a kind of cultigen and a misspelling of a Spanish word that possibly starts with ‘al [...]’.

²⁶ Read ‘machiyotl’.

²⁷ Read ‘siguese las planetas’.

²⁸ Read ‘de’.

102r	Nota de las Ralendas nonas & Idus	note on the Kalends, Nones and Idus
unnumbered folio	dias del mes – tabla para saber que horas tiene el dia en qual quiel ²⁹ tiempo del año	days of the month – table to infer how many hours there are in the day in whatever time of the year

1.4.3 Illustrations, tables and diagrams

Each illustration in ms 3523-2 is drawn in a rectangular or square double-lined frame – at times, this frame is decoratively filled with lines or dots. At this point, I will describe the drawings from left to right for scenes in which more than one figure is drawn. Most drawings are executed in a very sketchy manner.

<u>Folio</u>	<u>Illustration or table</u>
25r	Two crescent moons with faces; a man walking while holding a stick, a star, and a crab (Cancer); a horizontal stripe representing a surface from which reed grows.
26r	Two individuals reaching out to each other (Gemini); a star; an individual holding a flower in its hand (Virgo).
27r	A star is drawn above a ram (Aries); scales (Libra); two more stars.
28v	Two humanlike faces next to each other, with vertical lines surrounding their heads (two Suns); a lion with a humanlike face (Leo) with a star above its head.
29v	Two rams – a larger and a smaller one (representing Aries); two stars; a scorpion (Scorpio).
30v	A centaur holding a bow and arrow (Sagittarius); two fish (Pisces). Both Zodiac signs are drawn within a circle.
31v	A ram adorned by a star (Aries); a star; a naked lady that we see from the knees upwards holding a flower (Virgo). Both are drawn within a circle.
35v	A diagram representing the months (March is missing, however).
37v	A ram – Aries.
38v	A bull – Taurus.
39r	Two seated persons reaching out their hands to each other – Gemini.
39v	A crab – Cancer.
40v	A lion [damaged] – Leo.
41v	An individual holding a flower – Virgo.
42r	Scales – Libra.

²⁹ Read ‘qualquier [cualquier]’.

42v A scorpion – Scorpio.
43v A centaur holding a bow and arrow – Sagittarius.
44v A goat – Capricorn.
45r An individual with long curly hair kneeling down, holding a bowl – Aquarius.
45v Two fish – Pisces.
46v A scheme with the four elements – fire, wind, earth, and water – each associated with three Zodiac signs (English translation will be given as well).

tlatl (fire)	oquich ichcatl (male sheep)	yehecatl (wind)	Cocoahuame
	ocelotl (jaguar)		tlatamachivalotl (measure/guage)
	tlacamasalt (deer)		atete cac ([someone by the water])
tlali (land)	quaquahue (ox/bull)	atl (water)	tecuiçitli (crab)
	ychpochtli (maiden/young virgin)		colotl (scorpion)
	quaquauhtentzone (horned bearded animal)		michin (fish)

55r Aureus Numerus table.
58v Zodiac man (a naked male figure for which several body parts, organs, and mental capacities are added in Spanish text; to its left the seven planets are depicted and linked to some of those body parts and organs; the same is the case for drawings of the Zodiac signs to its right. In between his legs, a small male figure appears as well as additional text.)

61r Vein Man seen from the front.
63r Vein Man seen from the back.
65r T-O map: the earth is represent by a circle (O) divided in three by a horizontal and vertical line (T). The lower left half represents ‘Africa’ (Africa) and the lower right half ‘ERPA’ (Europe). The above half circle is ‘Asia’. Attempts have been made to draw hills, vegetation, and buildings in each continent. Four faces appear in the four corners, representing wind (each of these is named).

83r A table:

Altitonas	A	ener[o]	aquar[iu]s	Ayre	hehecatl	totoq[ui]
Dominus	d	febrero	Piscis	Qua	atl	Yztic

Divina.	d	Março	Aries	Fuego	tletl	totoqui
gerens.	g.	Abril	Taurus	Tierra	tlalli	yztic
bonun9.	b	Mayo	geminis	Ayre	hehecatl	totoq[ui]
Estas.	E	Junio	Cacer	Aqua	atl	yztic
gxatuito.	g	Julio	Leon	Fuego	tletl	totoqui
Eli	c	Angusto	Virgo	Tierra	tlalli	yztic
Feret	f	Setiebre	Libra	Ayre	hehecatl	totoq[ui]
Auxea	a	octobre	Scorpis	Aqua	atl	/.../
dona.	d	noviembre	Sagit	Fuego	tletl	toto/.../
Fideli	f	decienbre	capricor[nius]	Tierra	tlali	/.../

84v A table:

Signus

		Aries	tlapac ³⁰			Geminis
Fuego	tletl	Leo	tlaco	Ayre	hehe	Libra
Fuego	tletl	Sagitla	tlatzitla			agari9
		Taurus	Tlaccpac			Cacer
tierr/a/	Tlalli	Virgo	Tlaco	aq[u]a	atl	/s/corpi9
		capricor[nius]				p/is/cis/

84r

Domigo		Deciebre		Henero
Lunes		Noueber		Febrero
Martes		Octobre		Marco
miercol/es/		Julio		[left blank]
Juebe/s/		Setienbre		April
Fiernes		Ag[o]sto		Mayo
Saba/t/o		Junio		[left blank]

84v

A scheme stating the seven planets: Saturn, Jupiter, Mars, Sun, Venus, Mercury, and the Moon with the corresponding days of the week named after them. Each of the days is characterized by one or two Zodiac signs, an element, and a hot or cold state.

85r

a scheme with the Sunday letters (*Litera dominicalis*) in an elaborate gothic handwriting followed by their full names:

A	_____	Accipe
B	_____	bonus
C	_____	celum
D	_____	dei
E	_____	Esto
F	_____	filus
G	_____	gratis

³⁰ should read 'tlaccpac'

85v	A large table representing the Aureus Numerus and Dominical letters.
86r	Continuation of the table on 86v.
86v	A table with the days of the week in the first row, starting with Domingo (Sunday). The rest of the rows present the seven planets that were mentioned on f.85v. The second row beneath the days of the week presents the planets in the following order: Sun, Moon, Mars, Mercury, Jupiter, Venus, Saturn. The rest of the rows have another order, and a planet can appear without the other six having been mentioned earlier. Starting from the sixth row, not all days have a planet below.
102r	Two circular diagrams. The one on the left is somewhat smaller than the one on the right. The circle on the left is composed of two concentric circles making it possible to divide a band into smaller compartments. In a clockwise manner, a symbol for a cross is discernible as well as the numbers 1 to 10 in their individual compartments and the numbers 11 to 16 divided by a dot but in the same compartment. The right circle is composed of three concentric circles. Unfortunately the page is damaged towards the right, so it is difficult to reconstruct it as a whole. Reading the outermost circle in a clockwise manner, the symbol of the cross is followed by letters (the first half is invisible): dedecbgedbg. The innermost circle contains a series of five letters: fcaac. ca c [It is unclear under which letter the 'f' has been written] A horizontal line connects the two circles and runs from the centre of the left circle through the centre of the right circle.
102v	Two more circular diagrams, indicated as Aure: (Aureus Numerus) and litteras: dominicalis: (Dominical letters). Below and between the two circles a humanlike face is drawn and to its right the letter 'f' has been written. The left circle consists of two concentric circles and is composed in the same way as the left circle of f.102r only this time the numbering ends at 19. The right circle is also composed as the right circle of f.102r. The letters in the first concentric circle are in a clockwise manner:

cbageacbgedbagfdeba. The letters in the inner circle are: fgceg.

f g c e g

106v

A short table *De las Semana* – the seven days with corresponding planets:

Domigo

Lunes

Martes

Sol

Luna

Mars

Miercules

Jueves

Viernes

Sabbato

mercuri9

Jubiter

Venus

Saturnus

107v

Aureus Numerus: a rectangular bar summing up the numbers one to ten, divided by a vertical line from the numbers 11 to 19. Below the Aureus Numerus (which ends in the year 1560, so a cycle beginning in the year 1541) there is a scheme similar to the one on folio 84v. In the following sequence, it states the following: a weekday; one or two months; planet; in some occasions another weekday; one or two Zodiac signs; one of the four elements; a classification of either a cold or hot state.

108v

A table to facilitate counting (*guarismo* ‘number/figure’) in a European manner with European numbers and arithmetic. The numbers two to ten are given in the left column (the final two numbers are damaged and not visible) and in the rows to the right the left number is multiplied by itself and by all numbers up to ten. For example, number two times two is four, in the first row the four is written above the two; two times three is six, so in the second row the six is written above the three etc. Note that two times four is supposedly fifteen; in many occasions the number eight is written in the same shape as a five, for example in the rows of the two, three, five and seven. Below the table the following words are given from top to bottom: unidad, dezena, cuentena, Millar, as well as the number 5646.

109r

The same table as on f.109v, however, the numbers are given according to the Roman numeral system, hence the title ‘tabla cuenta de castellano’. Note that in this table two times two is three (ii.ii = iii). Below the table the same words are written as on the f.108v and the number 5646 in Roman numerals also.

109v

A table with the twelve Zodiac signs (repeated either twice or three times) and whether or not these signs have a good, bad, or indifferent

no n°.

effect on purification (tlachipahualoni) and
bloodletting (eztli)

A table for all the months of the year and the
corresponding amount of hours and minutes of
sunlight for each day (tabla para saber que horas
tiene el dia en qualquier³¹ tiempo del ano).

In total there are twenty folios that have an illustration of some sort; either a single scene or multiple scenes within one frame. On twenty-two occasions a Zodiac sign is depicted, a Vein Man is depicted twice, and there is one scene for Zodiac Man and the four winds respectively. There are seventeen tables and four circular diagrams. These drawings, tables, and diagrams will prove to be essential in determining which texts could have served as the source texts that were read and consulted by the *tlacuiloque* of ms 3523-2.

1.5 Concluding remarks

The analysis above has shown that the treatment of a wide range of topics were all combined into a single manuscript. The origin of Izcatqui must, therefore, lie in the need to compose a text that would be picked up by an indigenous readership of Nahuatl, whether out of curiosity or for the purpose of practical application. The Tropenmuseum itself states that this book was composed as a textbook for young Aztec nobility. Considering that the physical text of ms 3523-2 found its way onto paper in the mid-eighteenth century, this purpose for a manuscript from that period would seem unlikely. However, both the content and orthography of the manuscript point to the conclusion that it was created as an original text somewhere between 1573 (the extension of the Holy Bull of the Holy Crusade by Pope Gregory XIII) and the mid-seventeenth century. We have to take into consideration the appearance of a religious introduction that includes a very practical guide for the rite of the Morning prayer, and the context in which (indigenous) people were trained to write and read. This would seem to suggest that the original text of Izcatqui was written within a religious (and perhaps noble) context. The text as we see it now in the Tropenmuseum, however, poses new questions that go beyond content only. For example, the question of whether this manuscript could in fact have been written in a different context if we take it to be a copy of a much older text.

In this dissertation, I will methodically explore Burke's (2009) questions of why, whom, and for whom Izcatqui was created. Moreover, I will discuss the dominant contemporary interpretations of literacy and the circulation of books in the 18th century, as well as the attitude of 'authority' and of Izcatqui's possible readership towards the themes discussed in ms 3523-2. Importantly, it is clear that the curiosity and need for such a text in Nahuatl has not changed a great deal since the years of its creation, otherwise Izcatqui would not have existed until today. And it is also clear that the effort that was put into the creation of Izcatqui is not to be underestimated, because it would have required a joint effort of a group of six *tlacuiloque* working simultaneously and with great care.

In the following chapter, I will explore how ms 3523-2 relates to the Spanish genre of the astrological, medicinal, and agricultural almanac or *reportorio de los tiempos*. I will compare a number of editions by various Spanish editors and publishing houses through which a source text or a multitude of source texts for Izcatqui can be identified. This identification is intended to broaden our knowledge about the circulation of this genre of books in colonial Mexico. Furthermore, it will allow me to place (fragments of) source texts and translated texts of ms 3523-2 side by side, and so to analyze the tactics

³¹ Read 'qualquier' (cualquier).

of translation and explore the ‘decontextualization’ and ‘recontextualization’ in a process of cultural translation. I will also analyze other Nahuatl interpretations of *reportorios* which, even though it is a small corpus, shed light onto the development of translation of this genre. Finally, I will include three other important sources as a whole that include *reportorios* as well as a variety of other books: the Books of Chilam Balam, of Kaua, Ixil, and of Chan Cah. These manuscripts were written in Yucatec Maya in the 18th century and at first glance appear to be very similar to ms 3523-2. I will explore if that is truly the case and so determine if we can speak of what Peter Burke has called a “culture of translation”.

Chapter Two - Reportorio de los Tiempos

Calendars are a means to position oneself in a perceived present, past, and/or future. Moreover, the representation of time has a culturally-specific religious and ritual character. When combined, these factors made the introduction of the calendar system of Spain to the Americas a high priority in the early phase of European contact with the indigenous populations of Central America. In fifteenth-century Europe, the invention of the printing press allowed a fast dispersal of the Julian – and, from 1582 onwards, the Gregorian calendar system that people live by today in most of the world (Febvre & Martin, 1976: 97). An important genre of texts that contains the calendar is the almanac. In Spain, the almanac is known as a *reportorio de los tiempos* (repertoire of time). The first *reportorio* in Spain was edited by Andrés de Li in 1495 in Zaragoza. Laura DelBrugge is the first to fully transcribe and comment on his work. She writes:

“Andrés de Li’s *reportorio de los tiempos* represents a late fifteenth-century Spanish stage in the evolution of the western European calendar. It unites many different types of information, and its contents are the result of centuries of calendar construction including ecclesiastical, historical, astrological, medical, and agricultural sources. It was an extremely popular work, as is evident from its many reprints and editions.”
(1999: 20)

The Tropenmuseum manuscript, as other authors already pointed out (Anders & Jansen, 1988 & 1993³²; Spittler, 2005; Tavárez, 2011) contains precisely such an almanac. These studies are excellent stepping stones from which to explore possible source texts as well as modes of translation of the almanac in further detail. This chapter will compare a variety of Spanish editions with ms 3523-2 to infer which source texts its *tlacuiloque* consulted in the process of the creation of Izcatqui. This chapter will start off with a discussion of the content of the Spanish almanac and the development of the genre in Spain itself. Then, I explore both the presence of almanacs in editions that entered the American continent and editions that were locally produced.

2.1 The development of a “guide to life”

The early calendars developed from observations of cycles in the natural environment and celestial bodies that were already well thought out in the context of agriculture (Dutka, 1988: 56-57). The *reportorio* genre is a culmination of a long history of calendar revisions throughout the areas and periods of ancient Babylonia, Egypt, and the Roman Empire (DelBrugge, 1999: 1). Characteristic of the first pages of the *reportorio* genre is an account of the development of the Roman calendar. This calendar originally existed of ten uneven months of only 304 days. The second ruler of Rome, Numa Pompilius,

³² Anders & Jansen do not mention the term *reportorio*, however, they do refer to European astrology and Zodiac Man in their 1988 publication ‘Schrift und Buch im Alten Mexiko.’ Their book contains the first publication of the image of Zodiac Man from ms 3523-2. They place it alongside an image of a similar figure from a German source of the late sixteenth century and relate the European almanac tradition to the Nahuatl manuscript.

added the months January and February to establish a 354-day calendar in the 8th century BC (Pedersen, 1983: 21). To correct the runoff from the solar year, an additional month of 23 days was intercalated (*ibid.*: 21). In the first century AD, Julius Caesar made several crucial changes to the calendar. He extended it to 365 days and decreed that February would have an extra day every four years (so a mean year of 365 ¼ days) and decided that the first day of the calendar would no longer be the 1st of March but the 1st of January (*ibid.*: 21). As a result, the calendar was incongruent with the solar year by the time Caesar finished implementing his new calendar. As an adjustment, the year 46 BC lasted 445 days and became known as the “year of confusion” (DelBrugge, 1999: 2; Dutka, 1988: 57 and Pederson, 1983: 21). In accordance with the Julian calendar, the months were divided into Kalends, Nones, and Ides (or *kalendae*, *nonae*, and *idus*). The Kalends being the first day of the month, the Nones either the fifth or seventh day, and the Ides the thirteenth or fifteenth day (*ibid.*).³³ The day of the month was counted as a backward reference to one of these three divisions or markers; so, a reference point would be, for example, *x* days before the Nones of March.

A large corpus of manuscripts from the medieval period in present Western and Southern Europe testifies to a thriving occupation in the study of time. These studies and practices either had a physical correlation to the passing of time – such as agriculture – or were conceptually related to time – such as ecclesiastical celebrations and the veneration of Saints. In addition, we find evidence in manuscripts as early as the tenth century AD that there was also concern with zodiacal and medical information from the Arabic almanac tradition (DelBrugge, 1999: 5-6; see also Varisco, 1994). This Arabic and later Medieval development transformed the calendar into something that was much more than just a representation on paper of how people perceived the passage of time. The almanac became a practical guide, not merely for the cleric in church who needed to calculate the date of a religious celebration, but also for the farmer, who was aided by the almanac to determine when and what to sow and harvest throughout the year. Therefore, the representations of agricultural activities in each of the twelve months accompanied by the Zodiac signs, in mostly churches, grew fast in Western Europe in the early Middle Ages. It is precisely these types of illustrations that we find in the medieval Book of Hours or prayer books that contain prayers for each hour of the day (often added with a liturgical calendar as well) (see Wieck et.al., 2007).

The motions of the heavenly bodies and their relative positions were an integral part of science in the medieval period. According to Greek philosopher Aristotle, knowledge about the movements of the planets was crucial for our understanding, and dealings with, earthly affairs. This understanding had its implications for time-specific medicinal practices such as administering medicines, gathering medicinal plants, and phlebotomy (DelBrugge, 1999: 8-9). We see this reflected in important drawings of so-called ‘Zodiac’ and ‘Vein’ men in *reportorios*, images that are also present in ms 3523-2 (see more on this in Chapter Six). The Spanish almanac thus included a variety of themes ranging from the development of the calendar into the Julian/Gregorian calendar (depending on the year of publication); ecclesiastical feasts; agriculture; and medicine. A long history of calendar revisions – linked with religion, scientific theories on astrology/astronomy, and a need for agricultural advice – culminated into a practical guide for life that came to be known as the *reportorio de los tiempos*.

2.2 The reportorio in Spain

The first accessible and legible printed edition of a complete *reportorio* that still exists today, is the 1495 edition by Andrés de Li, which was printed at the publishing house of Pablo Hurus in Zaragoza.³⁴ This

³³ The *nonae* of a long month fell on the 7th day; this was the case for March, May, July and October. Consequently, their *idus* fell on the 15th day. For the short remaining months the *nonae* occurred on the 5th day and the *idus* on the 13th day of the month (DelBrugge, 1999: 2; Pedersen, 1983: 21).

³⁴ Possibly an edition exists in Catalan from 1488 as well as an earlier Spanish version printed in 1492. If there was indeed a Catalan edition, another possibility arises that the work by de Li, of which information on his origin

manuscript is located in the Biblioteca Nacional in Madrid (DelBrugge, 1999: 40). We do not know a great deal about Andrés de Li. The introduction to his 1495 edition states that the almanac was “fecho por Andres de Li ciudadano de Çaragoça,” although it is not clear whether he originated from this city or only stayed there for an unknown number of years (*ibid.*: 18). There are some clues about his place of birth that link him to Barcelona or the Eastern Pyrenees – and, in either case, to Catalonia. This would explain De Li’s usage of Catalan terms and would possibly explain why De Li incorporated an astronomical work called the *Lunari*, by the Barcelona-based Catalan Bernat de Granollachs.

According to DelBrugge, Bernat de Granollachs published his *Lunari* – or a lunar text of thirty-four folios – in Catalan in the year 1485. His work consisted of tables of the moon phases for the years 1485 to 1550. For each month of the year, De Li listed the moon phases, the time of appearance and degree, as well the Aureus Numerus and Dominical Letter for each year (see more on the Aureus Numerus and Dominical Letter in Chapter Four). DelBrugge adds that the original edition also included an introduction discussing the concept of the eclipse, the number of minutes in an hour, and several moveable Christian feasts. Granollachs *Lunari* was a very popular text and the basis for later versions in French, Latin, Castilian, and Italian (*ibid.*: 15). De Li omitted the introductory pages but copied the entire lunar chart and on his own initiative added the astrological, medical, and agricultural information.

DelBrugge lists a number of editions printed in the fifteenth century, followed by those printed before and after 1530 (cited from first and second references). There is an important addition to the original *reportorio* by de Li: editions from 1506 (Valencia, Costilla) onwards include a discussion on the characteristics of the four winds and there appears to be an additional discussion of phlebotomy. Another important shift takes place from the printings of 1510 (Sevilla, Cromberger) onwards: these editions include the months of November and December, which were not present in earlier editions (*ibid.*: 41). This has important repercussions for the search of a source text or texts for ms 3523-2 since, to reiterate, these include the characteristics of the four winds, the final two months of the year, and an extensive discussion of phlebotomy. Any attempt to identify the source text of Izcatqui, then, has to begin with *reportorios* that were printed from 1510 onwards.

Below, I will represent the table provided by DelBrugge on *reportorios* printed before 1530, including those she claims were added and printed after 1530, but which in her work are not represented. Even though Izcatqui could not have been based solely on the text by de Li as it was printed before 1510, I do include these editions in the table. Later in my attempts to identify the source text of Izcatqui, I will compare the texts of several *reportorios* with one another to see how where they differ or not, and I will consider how these differences and similarities relate to the text of Izcatqui. DelBrugge does not refer to any other editor in her discussion on the *reportorio* editions. She mentions that Sancho de Salaya added years to the lunar charts in a 1542 *reportorio*, but nowhere does she make a link to another name in regard to possible source text of the Nahuatl almanac. Moreover, she states that “[t]hese additions demonstrate the relative freedom publishers enjoyed with respect to their texts. Marketability was usually the driving force behind their decisions to alter original material” (*ibid.*: 42). The present concept of editor was not yet fully formed in the period before 1550. In fact, there was at that time no established copyright law and so basically anyone who felt the need could freely alter and add to existing texts (Brown, 1995: 29). For example, in the 1542 *reportorio* we read on the title page: *Reportorio de tie[m]pos nueuamente corregido por el famoso doctor Sancho de Salaya [...] (De Li 1542).*

The Spanish editions that I have found (through primary and secondary sources) independent from the text of DelBrugge do refer to editors and I will accredit them as such in the table below³⁵. As

is lacking, was written in Catalan and later translated into Spanish by Hurus (DelBrugge, 1999: 16). The Library of the Hispanic Society in New York houses an earlier edition by de Li that was printed in Burgos in 1493. This version, however, is incomplete and damaged (DelBrugge, 1999: 39).

³⁵ The genre was also known in Italian, Portuguese, and French (DelBrugge, 1999: 44).

for the editions from 1506 onwards, I will leave the editor column empty as I have not seen these editions myself and do not know whether or not an editor or ‘corrector’ was mentioned.

Year	Editor	Place	Printing house
1492	Andrés de Li	Zaragoza	Pablo Hurus
1493	Andrés de Li	Burgos	Fadrique de Basilea
1495	Andrés de Li	Burgos	Juan de Burgos
1495	Andrés de Li	Zaragoza	Pablo Hurus
1501	Andrés de Li	Valencia	Cofman
c. 1506		Valencia	Costilla
1510		Sevilla	Cromberger
1510		Toledo	Hagembach successor
c. 1514		Sevilla	Cromberger
1515 (or 1513)		Zaragoza	Coci (?)
1518		Burgos	Alonso de Melgar (?)
1529		Sevilla	Cromberger
1542	Sancho de Salaya	Granada	Unknown
1542	Unknown	Granada	unknown
1546	Sancho de Salaya	Zaragoza	Diego Hernández
1546	Unknown	Toledo	Unknown
1554	Unknown	Valencia	
1552		Valladolid	Francisco Fernández
1563	Bernardo Pérez de Vargas		
1567		Sevilla	Hernando Díaz & Benito López
1575		Sevilla	Alonso de Barrera
1580	Hieronymo de Chavez	Sevilla	
1581	Ambrosio de Gante	Valladolid	
1584	Hieronymo de Chavez	Sevilla	
1585	Francisco Vicente de Tornamira	Pamplona	
1585	Rodrigo Zamorano		
1594	Rodrigo Zamorano	Sevilla	

Figure 7. Table of Spanish printed editions of *Reportorios de los Tiempos*.

2.3 Astrological texts and readership

The *reportorio* is one type of text that documents the contemporary discourse on astrology and astronomy in the period that is the main focus for this study (i.e. the sixteenth through eighteenth centuries). Astronomical theories about the movement of earth, the visible planets and constellations, and theories of the effect of astronomical objects on human affairs gave rise to a large variety of texts – some very theoretical, others with a more practical approach.

Lanuza-Navarro (2009) classified astrological texts produced in Spain or abroad by Spanish authors in the seventeenth century. The author first differentiates texts into a category that includes

cosmography, the calendar, and predictions of the weather – or as she terms them *repertoires* or *reportorios/Cronografía* (Lanuza-Navarro, 2009: 119).

The second category of texts contain a treatise: a book which explains the theory of astrology in general and its relation to meteorology and medicine (*ibid.*: 120). The treatise not only explained astrology – and by doing so, defended its practice – but also included astrological prognostications. As these are mainly theoretical texts, they were produced to be read by the intellectual elite. An example of such a text is the work by professor of astrology, Salamanca Antonio Núñez de Zamora, on the astronomy of comets and their astrological value. His *Liber de cometis* from the early seventeenth century was written in Latin, but included prognostications for the year 1603 in the vernacular language. And another treatise that is of particular interest is Diego Cisneros *Sitio, naturaleza y propiedades de la Ciudad de Mexico* (1618), because it was printed in Mexico (a transcription and commentary was published by Martha Elena Venier in 2009). Cisneros' treatise deals with weather phenomena caused by heavenly bodies and astrological medicine.

The third category of Lanuza-Navarro is several types of texts that were less theoretical and more directed to a practical application under the header “pamphlet”. They consist of fewer pages than the heavier treatise and *reportorios*. An example of such a pamphlet is the lunar calendar (*lunario*) and annual prognostication (often called *almanaque*, which originally meant “calendar”). These often excluded astrological information and focused exclusively on lunar cycles and liturgical calendars. However, for the majority of people both these *lunario* and their denser *almanaque* counterparts came to signify annual prognostications (Lanuza-Navarro, 2009: 121).

There were different ways to establish a prognostication and often several methods were combined. The first method depended on the celestial configuration at the beginning of each season (so when the Sun entered the four Zodiac signs Aries, Libra, Cancer and Capricorn). By paying attention to these configurations, the astrologer was able to prognosticate about the weather, which then enabled him to give advice about the administration of medicines and bloodletting and purging. The second method was called the theory of the “Lord of the Year” in which it was determined which one of the seven planets influenced earth the most. From this method, prognostications for the weather, agriculture, and health were derived from the “Lord” (i.e. planet) (Avalos, 2007: 286).

The difference in readership between the treatises and the almanacs and prognostication calendars was clear. The almanacs were mostly of a theoretical character, and so were produced for an intellectual elite, often working for universities. The latter, however, included prognostications for the year to come, and so these were mostly intended for a public of “country people” who would care most about meteorological developments (Lanuza-Navarro, 2009: 122). If we extend the horizon to other parts of Europe – such as Italy, Portugal and England – we can find more data on the readership and availability of the highly popular annual prognostications in the sixteenth and seventeenth century. In England, these prognostications were so that by the 1660s, one third of all households owned an almanac. The earliest known printed almanacs were imported from Antwerp in 1493 and were edited by Gaspar de Laet Borchloen. From 1498 onwards, locally edited English almanacs were printed (Kassell, 2011: 431, 438). Such an almanac was published each year and included a calendar of the upcoming year, the liturgical calendar, and lunar cycles, alongside other astronomical data. It also included medical advice and prints of Zodiac man. The main difference between these almanacs and a *reportorio* was that the almanacs included prognostications for the upcoming year about the weather and health, but also about plagues, famines, and political and military events (*ibid.*: 431-436). According to Kassell, therefore, these almanacs,:

“[...] [W]ere commodities; almanac makers and booksellers collaborated in marketing them to select buyers [...] [f]ormat and price were geared to the desired market. Did the buyer want, like Byng [who bought an almanac in 1586 in

Cambridge], a small, unbound book that fitted easily in a pocket, or, like the unnamed man from Worcestershire, a sturdier book, bound and interleaved? [...] Almanacs had begun to be produced in England in significant numbers from the 1550s, and had soon become a staple of the book trade.”
(2011: 437, 438)

Kassell adds that almanacs were under regulation by the state, because their contents predicted, amongst other things, the political and economic developments of the future. Nevertheless, such almanacs were permitted to be sold throughout England³⁶ (2011: 439). According to Kassell, however, these English almanacs did not reflect consumers’ adaptations of their actions *per se*, and so such appeals to heavenly bodies cannot be said to have promoted blind astrological determinism. Instead, they were used more as a tool to manage the days of the year for a household, as is evidenced by several annotated almanacs from the sixteenth and seventeenth century. In these annotated almanacs, blank leaves had been incorporated on which its owner could leave notes as a type of diary (these were promoted from the 1560s onwards) (*ibid.*: 436).

In Italy and Portugal, the almanac was also readily available (Avalos, 2007: 285-286). In Italy, however, this type of text was forbidden by ecclesiastical censorship in the mid-seventeenth century, although it remained in circulation in a clandestine manner during the remainder of the century. In Portugal, almanacs were sold cheaply by bookstores and from the seventeenth century onwards in the streets or in ferries (Avalos, 2007: 286).

The *reportorio* genre, as we have seen, is a different type of text than, for example, the mainly theoretical treatise or the annual prognostication. A *reportorio*, in fact, contains a bit of both the treatise and the prognostication: it contains the historical and theoretical background of the calendar, astronomy, and astrology, while also providing general advice on agriculture and health issues. The *reportorio*, therefore, was not intended to provide a prognostication on the influence of a concrete astronomical configuration within the solar calendar on, for instance, sowing and harvesting or bloodletting. Rather, it created a general context in which agricultural and medicinal practices could be recommended or discouraged.

According to Burdick (2009), the list of authors who asked permission to publish a lunar calendar and prognostication or almanac is extensive. In Appendix D, I have listed the authors that intended to publish such a work in the seventeenth century (Burdick 2009).

2.4. Imported and locally produced *reportorios*

At least nine Spanish editions published between 1495 and 1583 were either shipped to Mexico or would have been known to scholars working with the genre in Mexico³⁷ (Spitler, 2005: 79). Jerónimo de Chávez’s *Cronografía o Reportorio de los Tiempos* was such an edition. The import of his *reportorio* is evidenced by Irving Leonard’s *Books of the Brave: a work of undeniable value to historians of the written word in the Americas*. De Chávez’s edition of the *reportorio* was published in Spain in 1548 and six of his copies entered Mexico City in 1576, as testified by the *protocolos de Antonio Alonso* (now

³⁶ Astrology was also mocked in England, evidenced by the many ‘burlesque almanacs and prognostications,’ blaming astrologers ‘for taking advantage of the superstitious beliefs and explaining the psychological needs of the uneducated masses’ (Kassell, 2011: 440). The same occurred in Spain in the seventeenth century (Lanuza-Navarro, 2009: 131-132)

³⁷ There is also evidence that these were imported to other Spanish colonies. For example to the Phillipines: one of Leonard’s appendices (1992, [1949]: 358-60) is a *Memoria los libros sigvientes que taygo yo Trebiña* from 1583 (now in AGN) in which don Trebiña lists 55 books that he brought from Spain to Mexico. Number 44 is the *reportorio* by Chávez, printed in Sevilla in 1581. The *reportorio* was also imported in Peru, as evidenced by a list of books imported in 1583. Among a variety of religious, historical, and fictional literature, we find 12 copies of the *reportorio* by Jeronimo de Chávez (*ibid.*: 351).

in the Archivo de Notarías in Mexico D.F., listing all books entering Mexico from Spain (Leonard, 1992 [1949]: 337-342). Apparently, Chávez's edition was so popular that new editions were regularly published in Spain and also in Mexico until the end of the sixteenth century (Spitler, 2005: 83, 84). A *reportorio* of unknown authorship was sold for five pesos by Franciscans Molina and Sahagún at the Colegio de Santa Cruz in Tlatelolco. This particular *reportorio* was sold amongst other books that belonged to the school in order to pay for its remodelations (Tavárez, 2011: 135).

Enrico (or Henrico) Martínez published his *Reportorio de los tiempos e historia natural de Nueva España* in 1606 in Mexico City. According to Francisco de la Maza, editor of the 1948 publication of Martínez's work, he tried to resolve the contradictions between the New and Old Worlds in his publication (Martínez, 1948: xii). Martínez himself points out that books brought from Spain did not make accommodations for other parts of the world, and the "gusto y presuroso" of those living there (*ibid.*: xv). His aim was to try and please his readers to his best abilities; i.e. to adjust the information in such a manner that it agreed with Mesoamerican circumstances. For example, Martínez constructed a table for the lunar cycle in the years between 1606 and 1620, and calculated the conjunctions of the signs and eclipses for the same period on the meridian of Mexico City, rather than those of a Spanish city (*ibid.*: xv, xvii).

2.5 The Inquisition and censorship

The import and circulation of books was – in theory at least – highly controlled by, first, Episcopal censorship first, and, later, by the Holy Office of the Inquisition established by Pedro Moya de Contreras (see the work by Poole, [1971] 2011). This meant that the import of books from Europe was checked each time a ship arrived at the coast of the Americas, and that each library and bookstore had to be able to present an up-to-date list of books it owned (Avalos, 2007: 236). In practice, however, the circulation of prohibited books in print or manuscript was not stopped by edicts issued on the matter (Leonard, [1949] 1992: xv-xvi; Tavárez, 2011: 156-158). The first edict that prohibited the publication of books on the matter of forecasting and astrology was ordered by the aforementioned apostolic Inquisitor, Pedro Moya de Contreras. The list of forbidden books included the *reportorio* genre (Quintana, 1969: 32). Pope Sixtus V ordered an edict on the 5th of November 1586 entitled, *Coeli et terrae dominus*, in which he forbade judiciary astrology (forecasting events in the lives of individuals) and only allowed for astrological books that were based on natural astrology; thus, prognostications on medicine, meteorology, navigation, and agriculture (*ibid.*: 32).

Apparently, this edict was not effective enough, because another edict arrived Mexico at the end of 1647 or in early 1648 with practically the same content.³⁸ And as from that year on almanacs had to be approved by the Inquisition, documentation on the publication of almanacs is rich (Burdick, 2009: 184). The underlying argumentation provided to support the issuing of this edict was that the fields of natural astrology, medicine, meteorology, navigation, and agriculture were beneficial to society as a whole. Therefore, it was seen as justified and understandable that practitioners of these fields were in need of annual almanacs to facilitate their work (Peraza-Rugely, 2011: 109). As Burdick explains, there is less information on the circulation of the almanac in Mexico before the mid-seventeenth century and, hence, before the introduction of the edict (2009: 184).

Censorship occurred in two phases; namely, preventive censorship and punitive censorship. The first could prevent a book from going to the printing press if it contained forbidden content; the second

³⁸ The edict obliges all who desire to print a prognostication to "de aqui en adelante no escriban ni impriman pronóstico alguno más de tan solamente en lo tocante a la navegación, agricultura y medicina, juicio de tiempos que poviene necesaria y frecuentemente de causas naturales como son eclipses, lluvias, pestes, tiempos serenos o secos..., aperebiéndolos que lo contrario hacienda serán castigados y se ejecutarán en ellos las penas impuestas. Y en caso que tengan impresos algunos se retendrán sin consentir se vendan ni distribuyan hasta que vistos por ese Tribunal se provea lo que fuere de justicia..." (cited from Quintana, 1969: 47-48).

occurred after a work had already been printed. In principle, preventive censorship was exercised by civil authorities, although at times – and especially in case of the almanac – the Inquisition intervened as well. Punitive censorship, in any case, was a matter for the Inquisition (Avalos, 2007: 236). Books could either be forbidden in their totality or they went through an expurgation to remove unwanted fragments from the text that would then otherwise be allowed to be printed. In some cases, an author suspected of heterodoxy was no longer allowed to print any books. In this case, he or she would be listed as an *auctor damnatus* (*ibid.*: 236).

As is evidenced by the Archivo General de la Nación, the seventeenth and eighteenth centuries were characterized by an ongoing concern for astronomy and prognostications. The Archivo holds a multitude of petitions to publish calendars, *lunarios*, and prognostications (see Quintana 1969).³⁹ These petitions not only show the level of preoccupation with contemporary science in Mexico, but also indicate what was and what not allowed to be published (and thus read).

Consider the following concrete examples of the censorship processes that Avalos (2007) described. An author who had no problem getting his work published in the second half of the seventeenth century was Juan Ruíz. This ‘neighbor’ or rather inhabitant (*vecino*) of Mexico City had made a prognostication in 1669 for the year 1670 concerning the allowed fields of agriculture, navigation, and medicine. His request was accepted by fray Alonso de la Barrera on the grounds that he did not find anything “*contraria a nuestra S[an]ta fee⁴⁰ y buenas costumbres.*” Furthermore, the work did not introduce any judiciary matter. With the same ease, Joseph Salmeron de Castro y Escobar, *medico catedratico* of surgery and anatomy at the University of Mexico City, was granted permission to print his work. His work included a *lunario* and prognostication for the year 1683 on medicine, agriculture, and navigation, which was similar to the work by Ruíz. His petition was received in 1682 by Inquisidor Licenciado Don Juan Gómez de Alvarez who, in his turn, sent it to fray Francisco Muñiz. His reply, after having read the complete work by Salmeron de Castro y Escobar, was that he did not find any evidence of judiciary within the document itself or any criminal record on the *medico* himself, and thus the work was open to publication. The final permission was granted by fray Miguel Dominguez, who, on Sunday November 17th 1682 added that he did not find any content that went against the Catholic faith.

Both Ruíz and Salmeron de Castro y Escobar received little feedback on their writing other than basically a stamp approval. Others received a more critical stance as we can read in the documentation on a work submitted by well-known seventeenth century intellectual Carlos de Sigüenza y Góngora. Sigüenza was born on August 14th, 1645 in Mexico City from Spanish parents. In 1660 and still at a young age, Sigüenza entered the Jesuit order in Tepozotlan, state of Mexico, where he authored several poems (Peraza-Rugely, 2011: 55, 60). After having been expelled from the order in 1668 due to “*sus desórdenes y salidas nocturnas,*” Sigüenza decided to study at the University of Mexico City, while at the same time he kept trying to re-enter the Jesuit order. He was never able to go back to the Compañía de Jesús, but was ordained as a secular priest in 1673 (*ibid.*: 60-61). In July of the preceding year (e.g. 1672), he was able to obtain the position of chair of Mathematics and Astrology⁴¹ at the University of Mexico City (Rojas Garcidueñas, 1960: xx). By 1680 he was named royal geographer by King Carlos II (Peraza-Rugely, 2011: 61). Throughout his academic career, Sigüenza tried to convince others through his writing that astrology had no place in science – a contradictory position for an astrologer, which he

³⁹ The work by José Miguel Quintana published in 1969 *La Astrología en la Nueva España (de Enrico Martínez y de Sigüenza y Góngora)* includes extensive appendices of every author Quintana found in the Archivo General de la Nación who asked for permission to publish a *lunario*, prognostication or almanac. For my appendices A, B and C I have consulted the original documents of the AGN and I have used my own transcription rather than the ones provided by Quintana.

⁴⁰ Should read ‘fe’.

⁴¹ The work by Peraza-Rugely names this chair Astronomy and Mathematics (2011: 61)

was in essence (Benítez Grobet, 1982: 144). In the final six years of his life, the scholar fell ill many times. He died on the 22nd August 1700, in his beloved Compañía de Jesús, to which he was allowed to return at last. The majority of his writing is lost, and that which survives is dispersed around the globe (Rojas Garcidueña, 1960: xxii-iii).

As *presbitero cathedratico propietario de Mathematicas* of the University Real, Sigüenza requested to publish a *lunario* and a weather forecast for the year 1679. Sigüenza himself argued that his work “*no tener cossa alguna contra la Fe, Disposiciones Pontificias y mandatos deste S[an]to tribunal*” (see Appendix A for a full transcription of his request). His *lunario* and prognostication were read by two Inquisitors; their feedback lists a series of propositions in the text that worry them and suggests how the text should be altered (see Appendices B and C). The first concern treats a discussion on the first folio of Sigüenza’s text, paragraph 2. Here, he suggests that mist and fog equal good fortune as these reject light to the dead. According to the inquisitor, this proposition is improper and mistaken (*impropia, y equivoca*). The commentator continues stating that it is improper because mist does not reject light, it just hinders it. Clearly the commentator wants to delete the agency which is given to mist by Sigüenza. Regarding this point, the commentator refers to the Biblical narrative of Tobias (or Tobit) who at one point wonders “what kind of gladness will be for me, since I sit in darkness and do not see the light of Heaven?” In addition, it is noted that darkness only rejects the material aspect of light, in contrast to the light of heaven; according to the author of the prognostication the latter would be more indicative than the former. Several other rectifications are suggested by the commentator, who refers to errors that derive from *mala inteligencia*. Sigüenza is reprimanded for arguing that eclipses are determinatively fatal for humankind and cause harm. According to the commentator, it is agreed upon that eclipses can possibly influence earthly affairs, but a deterministic outlook is to be eschewed.

The second commentator takes a rather different approach to the prognostication for the year 1679. This commentator does perceive the text in relation to the Catholic Faith and ‘good customs,’ however, he operates more as an editor of the text to improve its readability. For instance, he advises Sigüenza to delete a fragment that repeats something that the author had already stated in an earlier paragraph; and he urges Sigüenza to add an explanation on the nature of eclipses and their negative effects. Thus, in contrast to the first commentator, the second does not see any problem in the deterministic character ascribed to eclipses. These fragments are a nice example of how processing texts through the Inquisitorial system took place – and it is clear that personal taste and levels of criticism on the part of commentators played an important role. This resulted, more often than not, in the deleting of ideas irreconcilable with the accepted account of scientific thinking; or the editing of a text to conform with – and under the pretext of – Inquisitorial standards. In total, the Archivo General de la Nación holds documentation for almost every year in the period 1672 to 1701 in which Sigüenza (or his nephew Gabriel Lopez de Sigüenza⁴² after his death in 1700) asked permission to publish a *lunario* and/or a prognostication.

2.6 Izcatqui and possible source texts

Both Susan Spitler (2005) and David Tavárez (2000; 2011) link the Tropenmuseum manuscript to the *reportorio* genre. Spitler related Izcatqui to a *reportorio* edited by Sancho de Salaya, who published his work in Granada, Spain in 1542. She acknowledges that many of the *reportorios* are direct copies of one another, nevertheless she states that “[...] the wording of several of the texts in the Tropenmuseum manuscript follows so closely that of Sancho de Salaya’s *Repertorio* that I am confident it was one of

⁴² He was also the first biographer of de Sigüenza y Góngora. After his uncle’s death, the Compañía de Jesús received 470 books that were in his collection (of which 28 were manuscripts) and all contained original content according to Lopez de Sigüenza. These manuscripts are lost nowadays although their content can in parts be reconstructed through the writing of others who were acquainted with them (Trabulse, 1988: 23).

the author's primary sources" (2005: 232). Indeed, Izcatqui even mentions the work by Sancho de Salaya as follows:

[f.69r]	
[Initial] <i>Onpehua yn metztlapohualistli</i>	here begins the month count
<i>yn [a]quin axcan</i>	how now/today
<i>ya[n]cuican omo [f.69v] tlalli</i>	it was settled for the first time
<i>ynic mopohua</i>	in order to count
<i>cenpohualli omome xihuitl</i>	twenty two years
<i>oquitlalia yn cenca huey tlamatini</i>	he settled it, the great knower
<i>doctor Sancho de Salaya</i>	doctor Sancho de Salaya
<i>temachtiani Astrologia</i>	teacher of astrology
<i>ynic cepa Salamanga</i>	one time in Salamanca
<i>Auh oc cepa quiyacuili Juliano</i>	and once it took Juliano
<i>huey temachtiyani</i>	the great teacher
<i>yeh ican motocayotia</i>	because he named
<i>yn ipa[n] libro lunario qq</i>	the libro lunario
<i>metztlapohualistli</i>	the moon count

This fragment is clarified by Laura DelBrugge. She explains that there is an edition – based on de Li's edition from 1542 – in which 22 years were added to the lunar chart by Sancho de Salaya (1999:43). It is, thus, very possible that the authors of Izcatqui had either seen the work by de Salaya or had seen a later edition mentioning him as editor.

David Tavárez refers only to one source text for Izcatqui: the work by Andrés de Li. Tavárez mentions the first edition of his work in 1495, but does not mention any of the later editions by de Li (2011: 134). However, the 1495 edition of de Li does not include a discussion on the four winds or a second section on phlebotomy; and is missing in its totality a treatise of the months of November and December (DelBrugge, 1999: 17). Since these sections are present in the Izcatqui manuscript, it is evident that the Nahuatl version is not based on the de Li edition from 1495.

Let's return to Spitler's conclusion that Izcatqui is a literal copy of the text of Sancho de Salaya. Following her lead, but constructed independently, Figure 8 compares the text of ms 3523-2 with the *reportorio* by Sancho de Salaya [Granada 1542].⁴³ I agree with her conclusion that the work by De Salaya was one of the principal sources for Izcatqui.

Izcatqui	Folios	Passage in Sancho de Salaya [1542]
Text on Holy Bull of the Holy Crusade and Indulgencia Plenaria	1r-9v	Absent
Matins	10r-11r	Absent

⁴³ In an earlier stage of my research in which I was unfamiliar with the work of Spitler, I constructed a similar table, but only compared the content of Izcatqui with the work by Andrés de Li from 1495. However, since it is clear that the authors of Izcatqui did not use the 1495 edition as it lacks certain fragments that are represented in both Izcatqui and later *reportorios*, I have not included that table in the present work. The fact that the *reportorio* by de Salaya is a copy of the work of de Li, however, does lead, to a large degree, to the same results in the comparison.

Introduction to the <i>reportorio</i>	12r-12v	2r
Concept of the day	13r-13v	2v-3r
Hours of the day	13v-14v	3r-3v
Concept/divisions of the year	14v-16r	3v-6r
January	16v	6r-6v
February	17r (incomplete)	7r-7v
March	17r (incomplete)	7v-8r
April	17v-18r	8r-9r
May	18v-19v	10r-10v
June	19v	10v-11r
July	19v-20r	11r-11v
August	20r-20v	11v-12r
September	20v	12r-13r
October	21r	13r-13v
November	21v	14r-14v
December	21v	14v-15r
Concept of the week	22v	15r-15v
The planets related to the seven weekdays	23r	16r-16v
On the hours	23v	16v
On the planets	24r-v	16v-17v
The first sphere and moon	25r-26r	17v-18v
Second sphere and Mercury	26r-27r	18v-19v
Third sphere and Venus	27r-28r	19v-20v
Fourth sphere and Sun	28v-29v	20v-21v [according to text this is number 22v]
Fifth sphere and Mars	29v-30v	22v-23v
Sixth sphere and Jupiter	30v-31v	23v-24v
Seventh sphere and Saturn	31v-33r	24v-25v
Eighth and ninth sphere	33r	25v-26r
Introduction <i>reloj de la noche</i>	33r-35r	26r-26v
Figure <i>reloj de la noche</i>	35v	27r
Concept of the Zodiac signs	36r-37v	27v-28r

Aries	37v	28r-29r [according to the text, this is page 30r]
Taurus	38v	30r-30v
Gemini	39r	30v
Cancer	39v	30v-31r [according to the text, this is page 32r]
Leo	40v	32r-32v
Virgo	41v	32v-33r
Libra	42r	33r-33v
Scorpio	42v	33v
Sagittarius	43v	33v-34r
Capricorn	44v	34r-34v
Aquarius	45r	34v-35r
Pisces	45v	35r-35v
Table relating the zodiac signs to one of the four elements	46v	35v
The twelve months of the year and advice on agriculture, health issues, and humors for ⁴⁴ :		
January	46v	36r-36v
February	47r	37r-37v
March	48r	38r-38v
April	48v	[according to the text, this is page 40r-40v]
May	49r	41r-41v
June	49v	[according to the text, this is page 43r-43v]
July	50r	44r-44v
August	51r	45r-45v
September	51r	46r-46v
October	52r	47r-47v
November	52v	48r-48v
December	53r	[according to the text, this is page 50r-50v]
explanation and Aureus Numerus table	54r-55r	[according to the text, this is page 52r]
explanation <i>figura de la Amistad</i>	55v-58r	53r-54r

⁴⁴ Izcatqui does not contain a Saint's day calendar, which is present in Spanish *reportorio*. Only the recommendations have been selected by the writer(s).

Figura de la amistad/Zodiac Man	58v-59r	54v-55r
Influence planets and body parts	59v	
Influence zodiac signs and body parts	59v-60v	
Drawings and explanations illness and Vein Men – phlebotomy	60v-65r	55v-57v
Drawing T-O map and explanation four winds	65r-66r	58r-58v
Planets	65r-67r	[according to the text, this is page 60r-62r]
How to calculate the weekday of the first day of the month	67r-67v	62v-63v
<i>Cuenta del algarismo</i>	67v-69r	[according to the text, this is page 67v-68v]
Explanation on the <i>lunario</i>	69r-74v	84v-86v
Months and their relation to the Zodiac signs	72r ⁴⁵ -75v	
Negative influences on health by the zodiac signs	75v-78r	
Incomplete note on which planet governs the hours of the day and night	78r-78v	58r
Medical section	78v-80r	
Agricultural activities for each of the 12 months	80r-82r	
Tables and diagrams to calculate the Aureus Numerus and Dominical Letters as well as relating the four elements to the Zodiac signs and the planets to weekdays, Zodiacs, and elements	82r-86v	

⁴⁵ an error occurs here in the numbering of folios. This is the second sequence that starts at 72.

The twelve Zodiacs and prescriptions on what to eat or avoid	87r-89v	
The seven planets and influence on health	88v-91r	
12 ways of curing (amongst others with herbs cardo bendito and artemisia)	91r-93r	
Ways of curing according to four doctors (amongst them Pedianus Dioscorides)	93v- <u>96</u> r	
Characterization of zodiac as either good or bad	<u>96</u> r-97r	
On which day of the month the Sun enters the twelve Zodiacs	97v-102r	
Diagrams and texts on dominical letter	101v-106v	
'De la Semana'	106v-107r	
Text on Aureus Numerus (the years between 1541-1560)	107r-v	
Table relating the days of the week, months, planets, Zodiacs, and elements	107v	
<i>Tabla cuenta de quarismo</i>	108v	
<i>Tabla cuenta de castellano</i>	<u>109</u> r	
Table indicating whether a zodiac sign is good, bad, or neutral for purging and bloodletting	<u>109</u> v	52v
The number of stars in each zodiac sign	<u>1010</u> r-102r ⁴⁶	
Explanation on the kalends, nones, and idus	102r- <u>104</u> v ⁴⁷	62v-63v

⁴⁶ Should read f.110r-112r.

⁴⁷ Should read f.112r-114v.

Ownership statement Maestro Felipe de Santiago	<u>104v</u> ⁴⁸	
<i>Tabla para saber que horas tiene el dia en qualquier tiempo del año</i>	unnumbered folio – the final folio of ms 3523-2	[according to the text, this is page 71v-72r]

Figure 8. A comparison of the content of ms 3523-2 to the reportorio by Sancho de Salaya [Granada 1542].

What the table above illustrates is that the text of Izcatqui, to a large extent, corresponds to the text of Sancho de Salaya. As de Salaya's work from 1542 is an edited copy of the work by Andrés de Li, it inevitably follows that Izcatqui is also similar to the text of de Li. What the table also illustrates is that ms 3523-2 is not a complete copy of the *reportorio* of Sancho de Salaya. For this reason, we have to turn to other sources in order to find the original texts used by the *tlacuiloque* of Izcatqui. I will come back to this search in the next paragraph.

There is another clear indication that the work by Sancho de Salaya was a source text for Izcatqui. On folio 54r of Izcatqui, the *tlacuilo* tried to copy a sentence preceding a table that helps to clarify in which Zodiac sign the moon resides each day in a cycle of 19 years. The sentence in the *reportorio* by Sancho de Salaya is as follows: “*E nota que en aqueste año de.M.D.xlii. tenemos.iiii.de aureo numero [...]*”. The *tlacuilo*, however, writes D.[E/C].M.D.l.x.i.i. He does not seem to be well acquainted with Roman numerals and was likely wondering about the *año de*. Thus, instead of reading “year of” followed by M.D.xlii or 1542, the *tlacuilo* mistook *de* to be part of the Roman numerals and added this word to the year. So, the letter ‘d’ was turned into a Roman numeral. The letter ‘e,’ however, posed the *tlacuilo* some difficulty, and it seems in the end he wasn't sure how to interpret this letter at all. In ms 3523-2, this letter is neither a clear ‘e’ nor ‘c,’ but rather something in-between. The combination DC with a following M is impossible, so this suggests that the *tlacuilo* was not used to this system of writing numbers. In addition, the *tlacuilo* reversed the letters ‘x’ and ‘l’, transforming the number 42 into 62.

Much more can be discerned through a more detailed comparison of the several *reportorios* that include drawings as well. The importance to include drawings in the search for source texts is evidenced by the comparison below. Here we have two fragments, one from Andrés de Li [Seville, 1529] and the other from Sancho de Salaya [Granada, 1542], both of which explain the first sphere occupied by the seventh planet – the moon – according to the cosmological model of Ptolemy.

⁴⁸ Should read f.114v.

Andrés de Li [1529]
[f.viii]

¶ Siguense los planetas

[drawing of a man holding a stick over his shoulder, in a field of grass. The moon and sun are to its left and right respectively and in between his feet we see a crab or Cancer]

¶ Del primer cielo: y el Septimo planeta que es la luna que tiene en el su asiento.

[next folio]

El primer cielo es donde tiene su asiento la luna que es el inferior planeta y seteno: el qual esta co[n]stituydo en l[a] mas baxo circulo de la esfera: y en espacio de ocho anos consumo su circulo: y es señor del seteno y vltimo clima. Llama se luna quasi lucina: porque con ajena lumbre resplandesce: ca toma la del sol y ministra la en los cuerpos inferiores. Llamaron la los poetas por tres principales efectos que tiene luna en el cielo. Diana en los montes: y en los infiernos proserpina. E allende de ser feminino. [...]

Sancho de Salaya [1542]

Siguense los planetas.

¶ Del primer cielo y del septimo planeta que es la luna que tiene en el su asiento.

[drawing of a scene in the clouds, a woman holding a bow and arrow sits on a chariot that is being pulled by two men. A moon is drawn in the upper middle of the drawing and below the feet of the woman we see a crab (Cancer)]

El primer cielo es donde tiene su asiento la luna que es el inferior planeta y seteno: el qual esta contituydo el mas baxo ciculo d[e] la spha: y en espacio de veynte y siete dias y ocho horas consume su circulo: y es señor del seteno y vltima [sic] clima. Llama se luna quasi lucina: porque con ajena lumbre resplandesce: ca toma la del sol y ministra la en los Cuerpo inferiores. Llamaron la los poetas por tres principales efectos que tiene luna el el Cielo. Diana en los montes y en los infiernes Proserpina. E allende de ser feminino. [...]

The Spanish texts are similar up to a crucial point. They differ in the following: the amount of time it takes for the moon to complete one cycle. According to the work by Sancho de Salaya [1542], this period of time is 27 days and eight hours: *y en espacio de veynte y siete dias y ocho horas consume su circulo*. In the *reportorio* by Andrés de Li, however, the text omits the 27 days and erroneously turned the eight hours into eight years: *y en espacio de ocho anos consumo su circulo*. The same error is present in his edition from 1495, and thus presumably was a consistent error in editions by de Li.

[f.24v]

¶ /.../ yntla nepantli yn ilhuicatl yhua[n]
/ynic/ chicome planetas yehuatl yn lu[na]⁴⁹

Ynoncaquitquitica yninetlaliyaya [sign made by
tlacuilo]

[...] in the middle of the sky and
the seventh planet, the moon

there it governs, there it goes and settles itself

[f.25r]

¶ ynic centlanepantli yn ilhuicatl yn ilhuicatl
ychicome yn planetas Ehuatl yn luna
ynocanquitquitica yninetlaliayan_

the first in the middle of the sky, the sky

the seventh of the planets, the moon

there it governs, there it goes and settles itself

[drawing of a man holding a stick over his
shoulder, in a field of grass. Two similarly
drawn planets are drawn to its left (appear to be
two moons but probably represent sun and
moon). To its right, we see grass, a star and a
crab (Cancer)]

[Initial] Inic centlamatli yn ilhuicatl ca yehuatl yn
itechca metztli yehuatl y/.../tlatocuilia planetas
no yh/uan/ tlachiconcayotia yn yehuatl y/.../
pepech ynizquitlamatli ylhuicatl Auh
q[ui]p/e/hua cenpohualilhuitl ochicome yhua
ch/i/cuey hora yn oca[n]monamiqui
quitlatocati/a/ ychicontlamatli: yn ilhuicatl yhuan
tlalti/c/pactli yncanitlami mitohua metztli
tlanextli yehi techtlanextilia tlalticpac titlaca[n]
ytechquicui ytonatiuh ynitlanex yehica
q[ui]tocayotia yn huehuetque etetl ynitla tocayo
[...]

The first sky is that,

it is with the moon, it /.../ is the final planet
and also the seventh /.../

it is the last of all the skies and

it begins, 27 days and

eight hours, there it meets itself

it rules the eight skies and

on earth it ends, it is said, the moon

it lights up, this makes us light up on earth,

it gives us, the light of the sun because

the elders name its reign, threefold

The Nahuatl text follows the text by Sancho de Salaya: *it begins, 27 days and eight hours, there it meet itself* (i.e. its cycle). However, when we compare the image preceding the text on the first sphere in ms 3523-2, it is a clear copy of the image from Andrés de Li's *reportorio* [1529],⁵⁰ and is very different from the image in the edition by de Salaya (see Figure 9). For the other spheres and planets, Izcatqui does not include drawings of the scenes, only the Zodiac signs which are present in both Spanish *reportorios*, so the comparison of these images stops here.

⁴⁹ The text is red in Izcatqui.

⁵⁰ The edition from 1495 includes the same image. The work by DelBrugge does not show the images, but she does describe it as a “[m]an walking with staff; small picture of a crab representing Cancer” (1999: 57).



Figure 9. Drawings from ms 3523-2 (top), de Li [Sevilla 1529] (lower left) and de Salaya [Granada 1542] (lower right) respectively that precede the description of the first sphere.

The image in ms 3523-2 is clearly a copy of the man walking with a staff over his shoulder in a field of grass. The similarities between the two images go right up to his clothing and shoes. Moreover, the star and Zodiac sign are almost in the same location as in the work by de Li, although the *tlacuilo* has added another moon to the image. This drawing is in clear contrast to de Salaya's classical representation of the moon as a lady holding an arrow, on a chariot that is being pulled by two youngsters somewhere high up in the sky. An anonymous edition from 1554, which was probably also edited by Sancho de Salaya, is identical in text to his 1542 edition, but also here the image is different from Izcatqui. The scene on display is a man in a large cloak and hat covering his ears in the center of the image. He stands in front of a large brick building that almost looks like the entrance of a castle. The man points to the right where there is a typical image of a crescent moon with a face looking straight at him; the Zodiac sign Cancer is located below the moon. So the image in Izcatqui is different from both images in the *reportorios* of Sancho de Salaya, while it is identical to the one in the work by Andrés de Li.

2.6.1 Diagnostic features of Izcatqui

Figure 8 showed that several features of Izcatqui are not included in the *reportorio* of Sancho de Salaya [1542] and that some illustrations do not correspond to his work either. The content of one *reportorio* can, of course, differ from the content of another. Therefore, I will list all of the specific features of Izcatqui below and compare them to a variety of *reportorios* in Figure 18. I have selected 10 *reportorios*, three of which are by or credited to Andrés de Li. I selected these in order to investigate if his later editions do include more features present in Izcatqui. I have also selected one *reportorio* that was certainly edited by Sancho de Salaya [1542], and another one that is very likely based on that same edition, but which was published in 1554 after de Salaya's death in 1542. This anonymous text is entitled: *Repertorio de los tiempos, el qual tura [sic] desde el año M.D.L. iij. hasta el año de M.D.xc.ij. va añadido en muchas cosas y lugares, con toda dilige[n]cia [et] cuydado, por vn religioso dela horden [sic] del glorioso doctor sant Bernardo ; el qual tomo este trabajo por charidad y amor de sus proximos, en este año de 1554.* The *reportorio* was published at the house of Francisco Fernández de Córdoba, on the 22nd of June 1554, in Valladolid.

Although the work is left without a name of the editor who composed the work, an important clue is present on the title page. The image on the cover has many parallels to a painting of Sancho de Salaya, located in the Museo Naval in Madrid (see Figure 10). As the title of the *reportorio* suggests, it was

written for or in the order of the glorious doctor San Bernardo. This order is the Cistercian monastic order founded in the late 11th century in Cîteaux, France, which originated out of protest by the Rules of St. Benedict from the abbey of Molesme against the lack of a strict discipline in the church (Newman, 2013: 25). By joining the order around 1112 AD, St. Bernard of Clairvaux turned it from a small family into one that was spread across Northern Europe, the British Isles, and the eastern Mediterranean (*ibid.*: 25) The members of the order were nicknamed White Monks after the color of their cloak – and this is the same color cloak Sancho de Salaya is wearing (see also Figure 10). I will return to this order later in the hypothetical reconstruction of the work by the *tlacuilos* of Izcatqui.

In addition, I have also selected a *reportorio* by Jerónimo de Chávez [Sevilla 1584] since his editions were frequently imported from Spain and were probably among the best known *reportorios* in Mexico. The work by Rodriguez Zamorano also circulated in Mexico, at least in the Yucatec area where it served as one of the major sources for miscellaneous manuscripts of the Chilam Balam corpus in Yucatec Maya (see Bricker & Miram 2002) which I will include in the discussion later on in this chapter. Three other *reportorios* will feature in the table: two *reportorios* produced in Spain by Ambrosio de Gante [Valladolid 1581] and Francisco Vicente de Tornamira [Pamplona 1585]; and one produced in Mexico by Enrico Martínez in 1606. The selection of these *reportorios* is in part based on availability and is thus a subjective, but not random, choice. However, they also represent a small but varied corpus of texts that came from Spain and were known to have been read in Mexico. One of the texts was specifically composed for a Mexican readership and this, I think, is a helpful point of comparison. This is the case because although the editions by de Li and de Salaya had a great influence on Izcatqui, they do not cover its entire content.



Figure 10. Similarities between the cover of a *Reportorio de los Tiempos* published in Valladolid in 1554 and a painting of Sancho de Salaya [year and artist unknown, Musee Naval Madrid].

Diagnostic features of Izcatqui that are not present in every *reportorio* are listed in Figure 18. Of course, a comparison of the literal wording of texts is crucial as well, but this is not included in the table itself as I will comment on this aspect later in this chapter.

The diagnostic features of Izcatqui are the following (for some I have included the image of a diagram or of a table of explanatory text, which I will explain in detail in the subsequent thematic chapters of this dissertation):

1. Description of the twelve months.
2. A short one-folio description of four winds.

3. *Reloj de noche*.
4. Drawing of a T-O map.

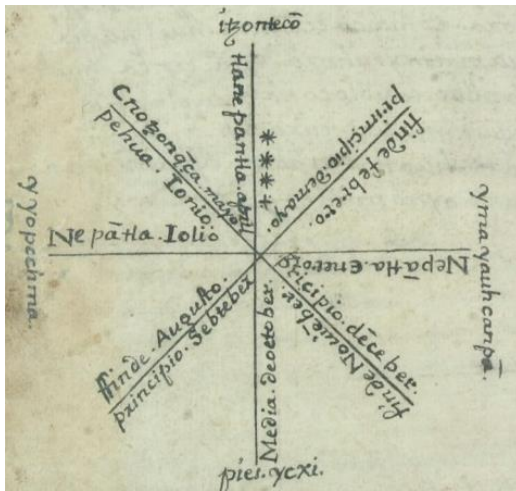


Figure 11. Reloj de Noche, f.36v.

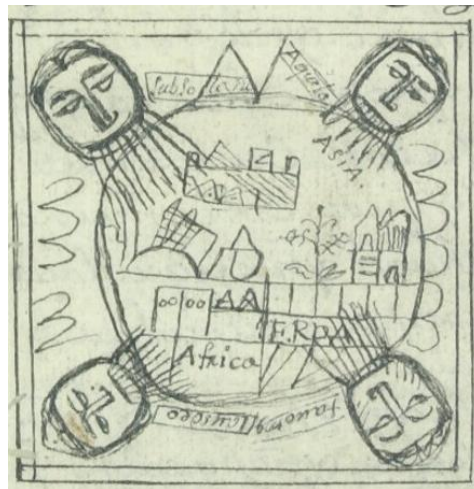


Figure 12. T-O map, f. 65v.

5. Drawing of Zodiac Man.
6. Drawing of Vein Men.

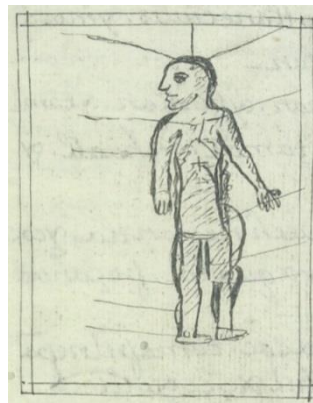
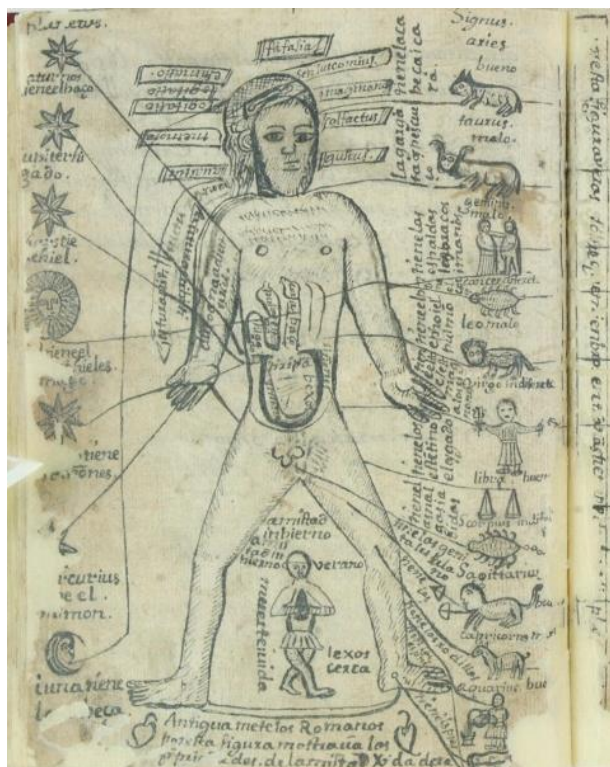


Figure 14. Vein Man, f. 63r (above) and f. 61r (below).

Drawing of Zodiac Man that includes a *figura de la amistad* in between his legs, the six senses around the head of the male figure written upside down, and the title of the drawing in its totality to the right side of the figure.

- Explanation of mnemotechnic devices used to calculate Christian feast days; including rhymes and circular diagrams.
- Table to infer in which Zodiac sign the moon resides in each year of the 19 year cycle of the Aureus Numerus.

Aureus numerus.	I	II	III	iiii	v	vi	vii	viii	ix	x	xi	xii	xiii	xiiii	xv	xvi	xvii	xviii	xix	
Aries.	y	n	c	v	l	p	h	z	p	e	u	m	a	s	i	a	q	f		
Aries.	z	o	d	u	m	a	s	i	q	f	x	n	b	e	h	r	t	s		
Aries.	r	p	e	x	n	b	e	h	r	t	s	g	y	o	c	l	a	s	h	
Taurus.	z	a	f	y	o	c	l	a	c	h	z	p	d	u	n	s	u	g	i	
Taurus.	a	r	g	z	p	d	u	m	b	h	i	s	q	e	x	n	c	f	h	
Gemini.	b	f	h	e	q	e	x	n	c	f	h	e	r	f	p	o	d	b	l	
Gemini.	c	s	i	z	r	f	y	o	d	b	l	a	s	s	g	n	e	u	m	
Cancer.	d	f	h	a	l	s	z	p	e	u	m	b	h	i	s	q	e	x	n	
Cancer.	e	v	l	b	s	h	r	q	f	x	n	c	t	i	z	e	s	y	o	
Leo.	f	u	m	e	t	i	z	e	s	y	o	d	v	h	a	f	h	z	p	
Leo.	s	x	n	d	v	h	a	f	h	z	p	d	u	b	g	i	r	z	q	
Leo.	h	y	o	e	u	l	b	s	i	r	q	f	x	m	e	t	h	r		
Virgo.	i	z	p	f	x	m	e	t	h	r	z	e	s	y	n	d	o	l	a	
Virgo.	h	r	e	g	y	n	d	b	l	a	f	h	z	o	e	u	m	b	s	
Libra.	l	z	r	h	z	o	e	u	m	b	s	i	r	p	i	x	n	c	t	
Libra.	m	a	r	i	r	e	p	f	x	n	c	t	h	z	q	s	y	o	d	
Scorpio.	n	b	s	r	z	q	s	y	o	d	b	l	a	r	h	z	p	e	u	
Scorpio.	o	c	t	l	a	r	h	z	p	e	u	m	b	i	r	z	q	t	x	
Sagittarius.	p	d	v	m	b	i	r	z	q	f	x	n	c	s	r	z	e	s	y	
Sagittarius.	q	z	u	n	c	s	r	z	e	s	y	o	d	t	l	a	r	h	z	
Sagittarius.	r	f	x	o	d	t	l	a	r	h	z	p	e	u	m	b	s	i	r	
Capricornus.	p	s	y	p	e	v	m	b	s	i	r	z	q	f	u	n	c	t		
Capricornus.	s	h	z	q	f	u	n	c	t	r	z	e	s	x	o	d	v	l		
Aquarius.	f	i	r	s	x	o	d	v	l	a	f	h	y	p	e	u	m	b		
Aquarius.	v	k	z	p	h	y	p	e	u	m	b	s	i	z	q	f	x	h		
Pisces.	u	l	a	s	i	z	q	f	x	n	c	t	h	z	q	s	y	o		
Pisces.	e	m	b	e	h	r	z	e	s	y	o	d	v	l	z	p	h	z		
Pisces.	y	n	c	v	l	z	p	h	z	p	e	u	m	a	s	i	r	z		

Figure 15. Table as an aid to calculate which Zodiac sign is the house of the moon

- Tabla para numerar (both Arabic and Roman numerals).

tabla. cuenta. de quaxismo

2	4	6	15	10	12	14	16	18	20
3	9	12	18	18	24	24	27	30	
4	16	20	24	28	32	36	40		
5	25	30	35	40	45	50			
6	36	42	48	54	60				
7	49	56	63	70					
8	64	72	80						
9	81	90	100						
10	100								

Unidad.
dezena.
Cientena. 5646.
Millar.

tabla. cuenta. de castellano. 109

ii	iii	vi	viii	x	xii	xiiii	xvi	xviii	lxx
iii	v	vii	ix	xi	xiii	xv	xvii	lxxi	lxx
iiii	vi	viii	x	xii	xiiii	xvi	xviii	lxxii	lxx
v	vii	viii	x	xii	xiiii	xvi	xviii	lxxiii	lxx
vi	viii	x	xii	xiiii	xvi	xviii	lxxiv	lxx	
vii	ix	xi	xiii	xv	xvii	lxxv	lxx		
viii	x	xii	xiiii	xvi	xviii	lxxvi	lxx		
ix	xi	xiii	xv	xvii	lxxvii	lxx			
x	lxx	lxx	lxx	lxx	lxx	lxx	lxx	lxx	lxx

Unidad.
dezena. d. lxx. xcl. vi.
Cientena.
Millar.

Figure 16. Table of multiplication in both Arabic and Roman numerals, f. 108v and f. 109r.

10. Tabla para saber que horas tiene qualquier tiempo del año.

The image shows two pages from a manuscript. The left page is titled 'Tabla para saber que horas tiene el dia en qualquier tiempo de la año' and lists the months febrero, marzo, abril, mayo, and junio. The right page lists julio, agosto, setiembre, octubre, noviembre, and diciembre. Each page contains a grid of numbers representing hours and minutes for each day of the month. The numbers are arranged in columns and rows, with some columns labeled 'No.' and 'Mi.' (likely for 'Número' and 'Minutos'). The handwriting is in Spanish and the paper shows signs of age.

Figure 17. Table of number of hours and minutes of the day throughout the year, unnumbered final folio.

The results set out in Figure 18 exclude a number of *reportorios* as possible source texts for ms 3523-2. For example, the table omits reference to the lengthy almanacs by Jerónimo de Chávez, Francisco Vicente de Tornamira, and Rodríguez Zamorano (the first two well over 500 pages, the latter almost hitting 800), because aspects of these almanacs cannot be said to have been incorporated into the Nahuatl manuscript. It is safe to say that these almanacs and the Nahuatl manuscript have no similarities in literal wording and, moreover, the overall content of these almanacs is of a more astronomical nature than we find in Izcatqui.

Enrico Martínez's *reportorio* – which was specifically written for a Mexican readership – is the one that has the least similarities to Izcatqui; namely, none. The *tlacuiloque* were apparently only interested in translating Spanish almanacs of a different character. And Martínez' work is more similar to the work by the three editors mentioned above whose texts, as said, also do not correspond to the wording of Izcatqui. The *reportorios* that do correspond to the text of the Tropenmuseum manuscript are by three other editors: Andrés de Li, Sancho de Salaya, and, in parts, Ambrosio de Gante.

Features Izcatqui	Description 12 months	Agricultural advice	Concise description of the Four winds	Reloj de noche	T-O map	Zodiac Man	Explanatory note Zodiac Man in similar fashion and figura de la amistad	Vein Man (x2)
Reportorio								
Andrés de Li [Zaragoza 1495]	No, November and December excluded	Yes, and at times related to the phase of the moon	No	No	No	Yes	No	Yes
Andrés de Li [Sevilla 1529]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Andrés de Li [Sevilla 1575]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Sancho de Salaya [Granada 1542]	Yes	Yes, and at times related to the phase of the moon	Yes	Yes	Yes	Yes	Yes	Yes
Anonymous [Sancho de Salaya? Valencia 1554]	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Hieronymo de Chaves [Sevilla 1584]	Yes	Yes, and always in relation to the phase of the moon	No, much lengthier description of more than 4 Winds	No	No	No	No	Present, but only a frontal image
Ambrosio de Gante [Valladolid 1581]	Yes	Yes, although slightly different (waning or crescent moon)	Yes	Yes	Yes	Yes	Yes	Yes
Francisco Vicente de Tornamira [Pamplona 1585]	Yes, but no agricultural or medicinal information	No	No	Yes, but different lay-out and more detailed	No	Yes	No	No
Rodriguez Zamorano [Sevilla 1594]	Yes	Yes, always in relation to the phase of the moon	No, much lengthier description of more than 4 Winds	No	No, two maps (Eurasia and the New World)	No	No	Present, but only a frontal image
Enrico Martínez [Mexico 1606]	No	No	No	No	No	No	No	No

Features Izcatqui	Explanation of mnemotechnic devices	Tablet to link phases of the moon to a Zodiac sign	<i>Tabla para numerar</i>	<i>tabla para saber que horas tiene el dia en qualquier tiempo del año</i>
Reportorio				
Andrés de Li [Zaragoza 1495]	No	Yes	No	No
Andrés de Li [Sevilla 1529]	No	Yes	No	No
Andrés de Li [Sevilla 1575]	No	Yes	No	No
Sancho de Salaya [Granada 1542]	No	Yes	No	Yes
Anonymous [Sancho de Salaya? Valencia 1554]	No	Yes	No	Yes
Hieronimo de Chaves [Sevilla 1584]	No, an explanation without mnemotechnic devices	No	No	No
Ambrosio de Gante [Valladolid 1581]	No, an explanation without mnemotechnic devices	Yes	Yes, however Arabic numbers only	No
Francisco Vicente de Tornamira [Pamplona 1585]	Yes	No	No	No
Rodriguez Zamorano [Sevilla 1594]	Yes	No	No	No
Enrico Martínez [Mexico 1606]	No	No	No	No

Figure 18. Table (in two parts) that compares presence of diagnostic features of Izcatqui to printed editions of the Reportorio de los Tiempos.

It is important to note that both the *reportorio* by de Gante and that of Sancho de Salaya were printed in Valladolid by the same printing house of Francisco Fernández de Córdoba in 1554. As such, their texts coincide; however their images do not. Rather, it seems that the (anonymous) printing house in Granada that published the edition by Sancho de Salaya in 1542 used the same wood blocks as did Fernández de Córdoba in 1581 in Valladolid for the edition by de Gante (see Figure 19 as an example).



Figure 19. Preceding images to March from Reportorios by De Gante [1581] and Sancho de Salaya [1542].

Here again we see how complex the copying of text and image became in the period under consideration. In the following table, I will provide a fragment from Izcatqui and show how the three texts by de Li [1495], de Salaya [1542], and de Gante are each very similar to this fragment [1581]. The latter in particular shares similar images, but, textwise, de Gante shares more similarities with the 1554 edition

(and as we have seen before, Izcatqui shares more similarities in drawings with Andrés de Li [1529]). According to the introduction of the *reportorio* in Izcatqui:

Ms 3523-2

[f.12r]

¶ NICAN opehuA Reportorion quitoznequi⁵¹

I⁵²yn macho can ynilhuitl yniquac
altepetli pan: quitlallia ynmacehualtin
cenca motlacamatia
cenca mocuiltonohuaia
auh ayamo qui:matia yniquitoco⁵³

Anoço yniquipixca
ayamotlequiapiyan
ymetzla pohualiz/tli/
Anoço yntlatecpānaliztli
caça[n]monēlo/.../
necan Ayamotlatecpātli catca
ynipanpa ayamotlectecpantlicatō
Ayamo tlanelto cayan Caoccentlamātli
ynic tlamani mopiaya
yntlacatecolo amoxtil
ynitocan_ AVREIIVNACRobio
Amo ypan:tlamia
Amohuel quinamiquia ynilhuitl
Anoço cahuitl
Amoyuh q[ui]catcā yntlamantli
auh ynaxcan omochiuh omotlalli
ymetz/.../pohualiztli yn yehuel nelli yuhqui
yuh qu/i/ye mocuepa[n] ynilhuitl
yn no[n]can toco yhu/.../can pixco
Ca yniquac ytechonaçi yxihuitl

[f.12v]

huiac xihuitl ytocan Saturno
yehuatl machiyotl
Onca[n] pehua ymacehualtin
çacamohua elimiqui yhua[n]toca pixcan
iniuh que ymilchiuhque milchihuani
huel⁵⁴ que quinextilian ynilhuitl [...]

Here it begins, the Reportorio, that is

that which is known, the day when
in the town the people lived
they became very rich
very wealthy
and he did not yet know how to sow/
and didn't yet know that before Christianity
or how to harvest
they didn't have anything yet
their month count
or the order
it was mixed up
something has not yet been ordered
because it is not yet ordered
they did not yet believe, still one thing

the devil's book was kept
his name is Aurelio Macrobio
it does not end here
he didn't meet the day
or the time
things weren't like that
and now it is made, it is settled
the month count is now very true
the days have returned
there it was harvested [?]
together with him, the years arrived

the great year, his name is Saturn
he, the sign
there begin the people
[?] to cultivate, to harvest
its fields, they are 'fieldmakers'
he shows them the day [...]

⁵¹ Decorative floral motif.

⁵² A capital letter 'I.'

⁵³ The translation of *yniquitoco* is uncertain. Justyna Olko suggested that the final 'o' might be an 'a', reading *quitoca* to fit the verb 'to sow'. Or perhaps *quitoco* is derived from *neltoconi* 'faith'. Translation remains inconclusive.

⁵⁴ 'l' in superscript.

This is more or less similar to Spanish *reportorios* and the fragments below illustrate how close the wording at times is:

Andrés de Li [1495]

[fol.99r] En aquel tiempo feroce & muy rustico ante que en Ytalia supiesen las gentes por orden sembrar ni coger (no touiendo dimension ni cuenta cierta alguna), andaua todo entre ellos confuso. Porende, como scriue Aurelio Macrobio, no hauia entonces tiempos ningunos. Ca tiempo no es al saluo vna cuenta o mesura cierta que dela continua conuersion del cielo se coje & alcança. E por quanto llegando ende Saturno a reynar, por su industria tuuo la gente noticia de arar, sembrar, cojer y enxerir por orden de agricultura, con tiempo & numero ciertos [...]

Sancho de Salaya [1542]

[fol.2r] ¶ Comiença el Repertorio delos tiempos. En aquel tiempo feros y muy rustico antes que en Italia supiesen las gentes por orde[n] sembrar ni coger:no tenie[n]do dimension ni cue[n]ta cierta alguna:andaua todo entre ellos confuso. Porende (como escriuo Aurelio macrobio) no auia entonces tiempos ningunos. La tiempo no es al:saluo vna cuenta o mensura cierta que del continuo mouimie[n]to del cielo se coje y alcança. E por quanto llegando ende Saturno a reynar:por su industria tuuo la gente noticia para arar/sembrar/coger/y enxerir por orde[n] de agricultura con tiempo y numero cierto [...]

Ambrosio de Gante [1581]⁵⁵

[fol.3v] ¶ Comiença el Repertorio de los tiempos. Antes que las gentes supiesen por orden sembrar ni coger, no teniendo orden ni cuenta cierta, andaua todo entre ellos co[n]fuso. Y como escriue Aurelio Macrobio, no auia entonces tiempos ningunos; ca tiempo no es otra cosa, saluo vna cuenta, o mensura cierta, que del continuo mouimiento del cielo se colige y alcança. Y ansi estuuieron mucho tiempo, hasta que Saturno vino a reynar en Italia, por cuya industria tuuo la gente noticia para ara, sembrar, coger, y enxerir por orden de agricultura, por tiempo y numero ciero. [...]

Overall, the editions by Sancho de Salaya are the ones that have the most in common with Izcatqui. Similarities include the literal wording of text; the iconography of the *reloj de noche*; the table of the Aureus Numerus; the instructions about how to infer the Zodiac sign in which the moon houses and the preceding text explaining that the year 1542 is the fourth in the cycle of 19 (even though erroneously copied by the *tlacuilo*); the T-O map and description of the four winds; the Zodiac Man in all its details is *completely* the same as the one in the 1542 edition (see Figure 20); the Vein Man displayed from the front and the back; and the table that lists the amount of hours of day light for each day of the year.

Several features are lacking, though. First, the *table para numerar* is not present in printed almanacs by Sancho de Salaya nor by Andrés de Li. This table, however, is present in the *reportorio* by Ambrosio de Gante on page 79v (see Figure 21). What is also missing from the work of Andrés de Li, Sancho de Salaya, and de Gante are the mnemotechnic devices; that is, the circular diagrams and rhymes to calculate the celebrations of Catholic feast days. So, we can infer that these must have come from other *reportorios* that at first sight do not seem have been sources for Izcatqui, because the majority of their text does not coincide with the Nahuatl manuscript. I will explain the nature of these mnemotechnic

⁵⁵ This text is the same in the *reportorio* printed in Valladolid in 1554 [presumably based on text by Sancho de Salaya].

devices in detail in Chapter 5, but for now it suffices to indicate that these appear in the *reportorios* by Francisco Vicente de Tornamira [Pamplona 1585] and Rodriguez Zamorano [Sevilla 1594], whose texts, other than these fragments, have nothing to do with the content of Izcatqui.

The comparison presented above has illustrated the complexity in trying to find ‘the’ source text for Izcatqui. Two hypotheses can be drawn from what I have illustrated above. First, that the authors of Izcatqui have consulted a variety of *reportorios* and turned it into what became ms 3523-2. It does, however, seem unlikely that they would have copied the text of one almanac (Sancho de Salaya 1542) and added the drawings of another right above that text (Andrés de Li 1529). Secondly, that the authors have consulted a *reportorio* in either Spanish (that I have been unable to locate) or Nahuatl which already combined features of several almanacs and which was translated or copied as such.



Figure 20. Zodiac Man from Reportorio by Sancho de Salaya [1542] and Izcatqui.

The images in Figure 20 are identical, up to the senses around the head in an up-side-down reading order, the text below the *figura de la amistad*, and the explanatory sentence to the right of the figure. In Izcatqui, this line did not fit on the page anymore, but the *tlacuilo* drew a line around the sentence in order to make it appear as if it was still on the same page as the drawing of the Zodiac Man.

Tabla para numerar.

1	4	6	8	10	12	14	16	18	20
2	2	3	4	5	6	7	8	9	10
3	9	11	13	15	17	19	21	23	25
4	4	5	6	7	8	9	10		
5	15	20	25	30	35	40	45	50	
6	6	7	8	9	10				
7	49	56	63	70					
8	8	9	10						
9	81	90							
10	100								

Figure 21. Table of multiplication from the Reportorio by de Gante [Valladolid 158: 79v].

2.7 Concluding remarks

The question remains whether the *tlacuiloque* compiled ms 3523-2 from a variety of sources or whether they translated or copied a source that already contained most of its features within a single *reportorio*. Whatever the true original almanac source(s) for Izcatqui, this (or these) source(s) itself (or themselves) must have evolved out of copying, combining, and adding text to already existing fragments. During this process, the Spanish texts that seems most likely to have been consulted were at least those by Andrés de Li [1529], Sancho de Salaya [1542 and 1554], and Ambrosio de Gante [1581]. With the exception of the text produced by de Salaya, these almanacs were produced for the order of San Bernardo. As stated earlier, this order originated in the 12th century in France on the initiative of St. Bernard of Clairvaux. The order was well known for the development of its own handwriting and style of initials, and the order also produced a large amount of manuscripts and books. The order became formally based in Mexico when its first convent was built in 1636 in the capital. This avenue needs to be further explored in future research.

The incorporation of the *reportorio de los tiempos* text is not limited to the single copy of Izcatqui. There are several manuscripts that include – to a greater or lesser extent – translations of fragments of the Spanish almanac. The following chapter provides a description of these manuscripts and compares them in a general way to Izcatqui. These texts have not only been written in Nahuatl but also in Otomí, a language spoken in Central Mexico and in Yucatec Maya. Even though the corpus known today is small, its variety in languages and its presence throughout hundreds of years is remarkable. It seems to suggest that the corpus today is just a remnant of a more thriving genre read in colonial Mexico.

Chapter Three - Translations of the *reportorio* genre in Nahuatl, Otomí, and Yucatec Maya

The *reportorio* genre was not unfamiliar to certain groups of indigenous readers from the early colonial period onwards. Alongside Izcatqui, there are a handful of texts that we know of that were inspired by the Spanish almanac and have survived until the present. Because the almanac itself is inseparably related to the calendar, there are plenty of calendrical texts that can also be linked to the *reportorio*. In this chapter, however, I consider only those colonial texts that have a clear reference to the *reportorio*. As will become clear, these texts were written in a variety of indigenous languages, and so in the interest of clarity I will systematically provide an overview of each of these texts in chronological order in the subsections below. Moreover, I will also augment the study of these individual texts by providing a general overview of these texts as a single genre.

By providing a general overview of these texts as a single genre, I aim to achieve two goals. Although the corpus is small, I would first like to give a provisional answer to the question of whether or not it is possible to track a certain development of the genre as a whole on two levels. The first level is the selection of the content of the Spanish text to enter the indigenous text. The second level is the mode of translation of the source text; or, put differently, the question of how certain concepts were translated by the scribes. My second goal is to give an answer to the question of whether the small corpus allows for an analysis of regional differences between the two levels described above.

In the following, I begin with the oldest text known to have been inspired by a *reportorio*: a handwritten addition to a *Doctrina Cristiana* in Nahuatl by Pedro de Gante. These fragments are followed by the *Codex Mexicanus*, a document from the sixteenth century that combines the tradition of indigenous central Mexican pictography with handwriting in the Roman alphabet. Then, I consider two texts from the seventeenth century: one in Nahuatl and the other in Otomí (also spoken in central Mexico). From the peninsula of Yucatan, I consider the books of Chilam Balam that were written in the eighteenth and nineteenth centuries. Of the nine Chilam Balam books, three books in the Yucatec Mayan language have a significant number of pages highly inspired by and translated from the Spanish almanac.

3.1 A *reportorio* in an edition of the *Doctrina cristiana en lengua Mexicana*, by Pedro de Gante [1553]

Among the religious documents that were printed in Mexico as a means to teach the indigenous population a new religion was the catechism by Franciscan fray Pedro de Gante, who was originally from Flanders, the Southern Netherlands (now Belgium). His text – a doctrinal work in the Nahuatl language – was possibly printed before 1528 in Belgium and sent overseas, because the printing press was yet to be introduced into Mexico (De La Torre Villar, 1974: 30). It was not until around 1547 that De Gante's text was printed in Mexico City itself (*ibid.*: 30). A second edition – which is particularly relevant to what I have to say here – was published in the Mexican capital in 1553 by the house of Juan Pablos. One of the copies of this printed text includes eight handwritten pages;⁵⁶ their transcriptions and

⁵⁶ Both recto and verso contain writing; the pages themselves are unnumbered.

translation were established and published by Alfredo López Austin in 1973. He had received copies of the handwritten pages from Ernesto de la Torre Villar, director of the National Library in Mexico City at the time. Today, these pages are preserved in the national archive (Archivo General de la Nación) in Mexico City. De la Torre Villar noticed the remarkable additional pages (López Austin, 1973: 285). López Austin was the first to notice that the added handwritten fragments derived from two different genres of texts: a *reportorio* and a *huehuetlatolli*. The latter, meaning “words of the elders” or “ancient words”, is a genre of texts that reflect oral narrative and didactics. The *huehuetlatolli* discourse instructed young people preferred moral behavior and social conduct. The scribe of the *huehuetlatolli* as part of a copy of De Gante’s catechism was able to select from a *huehuetlatolli* that could have been used in either a social, political, or religious context (Ruiz Bañuls, 2013: 270). The *huehuetlatolli* that was added to De Gante’s work, was one dedicated to women who lost their lives during childbirth (López Austin, 1973: 285).

As López Austin has already observed, the handwritten folios are from one and the same clear hand, and its paleography is characteristic of that of the sixteenth century (*ibid.*: 285). This seems to suggest that the printed catechism and the handwritten material were combined early after the catechism was printed. If this is right, then this manuscript would be the earliest known *reportorio* in an indigenous language. The first paragraph of the manuscript is in Spanish and its errors of grammar and spelling hint at a writer who did not master the Spanish language completely.⁵⁷

[p.1]⁵⁸

¶ Cumiença er Reperdorio

delos dienpos mochas cosas: nosepones

aquí que nohua prouechas nalus

yndio ynnentehter deenero auh

yzcatqui aquirios

Comienza el Repertorio

de los tiempos, muchas cosas no se ponen

aquí que no aprovechan a los

indio[s] inicialmente⁵⁹ de enero y

aquí está Acuario

A text is never just equal to the contents that it contains. It lives because of and within a context of production and (re-)use. As a result, the *tlacuilo* who creates a text also informs us about those elements that have been presented in a deliberate effort to convey what he believes is important through that text.

Consider first the element of interpretation and reinterpretation of a source text. The second sentence in the fragment above claims, without further specification, that things which are not of interest to an indigenous readership are not included in the text. By doing this, the *tlacuilo* justifies his (possible) alterations of the original source text. Now consider the element of the creation of the text for a specific readership. Through the reference of a Nahuatl text that excludes any type of information unfamiliar to local people, the *tlacuilo* directs the text to a specific Mesoamerican readership. The content of the text after its translation and editing into Nahuatl, may not be familiar at first sight to an indigenous reader. However, as the *tlacuilo* continues to argue, he believes it is full of information relevant to the Nahuatl reader.

It is not uncommon for authors to explicitly leave out what they consider to be irrelevant information during the consultation of textual sources. Still, in the case of this particular *reportorio* it is

⁵⁷ See López Austin (1973: 287) for more on the erroneous use of Spanish *and* Nahuatl by the *tlacuilo*. A sentence in Latin, however, has been written perfectly – presumably it was copied directly from another text.

⁵⁸ In accordance with López Austin’s article, I not only reproduce a transcription of the Spanish paragraph as it is in the *Doctrina christiana*, but also provide my own version of the text to indicate how it would read in correct Spanish.

⁵⁹ *ynnentehter* has been transcribed as *yn nentehter* by López Austin (1973: 288) and corrected to *inicialmente* (*ibid.*: 292).

striking that the one sentence so persuasive in attracting a Nahuatl native reader is written not in Nahuatl but in Spanish. And not only is it written in Spanish, but it is also written by a *tlacuilo* who does not seem to have mastered the Spanish language completely – at least not in writing. The catechism was studied in a context of Spanish friars who taught Christian discourse to indigenous Nahuatl students. Both parties were in the process of learning each other’s language; Spanish and Nahuatl (wo-)men⁶⁰ both functioned as teacher and student at the same time. The going back and forth between two languages is reflected in this Nahuatl text, which is preceded by a Spanish introduction. Both languages, although in varying degrees, were comprehensible to both Spanish and Nahuatl speakers.

The text is organized into subsections – one for each of the twelve months – followed by two short religious paragraphs. All subsections, except the one for January, are introduced by a header in the form of the name of the corresponding month in a mixture of Latin and Spanish.⁶¹ The Spanish word *de* or “about” precedes the months of March, April, and May. When the *tlacuilo* wrote his paragraph on December, he realized he was copying the text of October and crossed out the six lines he had written so far. On the following page, he formulated the paragraph on the month of December as it should have been. The two short paragraphs that follow the final month of the year are:

<p>¶ <i>Auh yniquac gomocelili</i>⁶² <i>ynteopixqui yninacayotzin into[tecuiyo] Jesux[r]is]po yzcatqui anquitozque</i></p>	<p>and when the priest received the beloved body of our Lord Jesus Christ, here is what you [pl.] will say</p>
<p>¶ <i>Domine no[n] sum dignus vt in tres subtectum meum sed tantum dic verbo et sanabitur Anima</i>⁶³ <i>mea.</i></p>	<p>Sir, I am not worthy that you will come to me but one of your words will suffice to cure my soul⁶⁴</p>

Since the work by López Austin includes a reliable transcription and translation of the complete handwritten text, I will not include one myself here. Instead, I will focus on the content of the *reportorio* and add my own comparative analysis of possible Spanish source texts, which López Austin’s short commentary does not include. From the Nahuatl text, it immediately becomes clear that the *tlacuilo* selected fragments that highlight three types of information:

- 1) agricultural advice;
- 2) medical advice;
- 3) Zodiacal information and its influence on people’s personality.

The handwritten material attached to the *Doctrina Cristiana* is derived from a *reportorio* and, more specifically, copied from fragments that follow a calendar of the twelve months and every celebration

⁶⁰ It is often presumed that the gender of the scribe is male, however in reality we don’t know.

⁶¹ The transcription of the headers of the months are as follows: febrero, demartios, deabril, demayus, Junius, Julius, Aogosto, Sediember, OCTumber, nouember, December [sic].

⁶² According to López Austin this is to be translated as “to receive” (an orthographical explanation is lacking). The morphological composition of the word could then be *oc mocel[ia]li*. It seems to be more plausible that it should be composed of *qui-mo-celi-li* (3SG.OBJ-REFL-receive-APPL-RET) ‘he received (it)’ (S. Wichmann, personal communication).

⁶³ López Austin transcribed the word with a lower case letter ‘a.’

⁶⁴ My translation from López Austin’s Spanish “*Señor, yo no soy digno de que vengas a mí; pero una palabra tuya bastará para sanar mi alma.*” (*ibid.*: 296)

of a Saint's day throughout the year.⁶⁵ The *Doctrina Cristiana* combines advice on agriculture and medicine with descriptions of an astrological nature. In a *reportorio*, the astrological descriptions are typically part of the discussion of the twelve Zodiac signs and do not follow the Saint's calendar. From this we can conclude that the *tlacuilo* of the short Nahuatl *reportorio* selected and combined fragments that he saw as fit for his text.

Below I will compare the text of the month of January from the short *reportorio* in the *Doctrina* with the content of the same month in the *reportorio* by Sancho de Salaya (Granada 1542).

In the month of January, it is appropriate that they prune, so that they are clean, all the trees. They will cut the branches. And as they spread much, the branches of the tree, it is appropriate that they will bury them in the garden. And it is appropriate to graft the fruit trees. And it is very appropriate that they bury them [what is unclear] at the feet of the vineyard, so that they will prune the roots, and cut the roots of all stems and with them they are to be planted. And also [they sow] *ayecote* [a type of large bean]. And perhaps they [the beans] will lose weight: is necessary to throw water, that they are irrigated. And it is appropriate in this month of January that people bathe themselves in the *temazcal*. And it will be consumed, hot food. It will be appropriate with lukewarm water. Cut yourself with obsidian if you have an ulcer: as such it will heal. The sign of the month is Aquarius. Those who are born from him will not be tall; some will be very short. They will love women very much.

López Austin (1973: 292-3, my translation from his Spanish translation)

En aq[ue]ste mes siendo vieja la luna:deues alimpiar los arboles q[ue] pierdan la hoja:y es tiempo dispuesto para trasplantar y enxerir : para cauar las viñas:los rosales: y los gezmines : paraer y entrecuar el alfalfa; y boluer los bauechos:y para pla[n]tar qualquier generacion de legumbres. Deues vsar en aq[ues]te mes los baños y las sangrias: y los manjares y potajes claros y calientes de su natura: y no deues sufrir q[ue] seluante el estomago dela mesa con sed.

[other page on Aquarius]
[...] *el que nasciere en aqueste signo sera hombre pequeño:triste de condicion amara mucho las mugeres.*

Sancho de Salaya [Granada 1542]

In the following subsection, I will investigate by which means the *tlacuilo* tried to accomplish his aim to fit the text to a Mesoamerican context and readership.

3.1.1 Examples of cultural translation

The comparison of the month of January illustrates that the *tlacuilo* was familiar with a *reportorio* and reinterpreted the original text with the intention to create a text that would make sense to an indigenous readership. So instead of mentioning non-native flowers and herbs – such as the rose, jasmine, and alfalfa – the *tlacuilo* included local *ayecotes* (large beans). And through the use of Nahuatl *tema* “to bathe in a sweathouse” (Karttunen, 1983: 221) to a type of bathing undertaken in the Mesoamerican *temazcalli* or steam bath for ritual and medicinal purposes (Katz, 1993: 175-183). The use of the expression *mitzminaquiuh* to explain the reader the action of cutting is revealing, because it is composed of *mitz* [you singular], *mina* [to shoot an arrow], and *-quiuh* [inbound purposive]. The inbound purposive

⁶⁵ Note that the first pages of the *Doctrina cristiana* [1553] contain a complete Saint's calendar, which is, apart from some celebrations, almost completely the same as for example the calendar in the *reportorios* by Andrés de Li [1495] and Sancho de Salaya [1542].

suffix means “to come in order to” (Hill & Hill, 1986: 259). Therefore, *mitzminaquih* [*mitzminatiuh*] probably refers to the act of cutting one with an arrow/sharp object, in order to relieve and ultimately cure an ulcer.

In Appendix E, I have juxtaposed the *tlacuilo*’s agricultural advice, medical advice, and astrological information given in the short Nahuatl text with the same information from Sancho de Salaya’s *reportorio* from 1542. The data remains inconclusive as to which Spanish *reportorio* or *reportorios* was or were the source text(s) of the Nahuatl *reportorio* in the *Doctrina Cristiana*. At first sight, however, the short Nahuatl *reportorio* seems to resemble the editions of Sancho de Salaya [1542] and Andrés de Li [1495] more so than the more theoretical and longer *reportorio* by Jerónimo de Chávez.⁶⁶ Figure 22 is an overview of elements in the Nahuatl text that were deleted from Sancho de Salaya’s text and the novel additions that sometimes replace deleted elements.

Month in Nahuatl <i>reportorio</i>	Deletions	Additions
January	alfalfa, pods, roses	<i>ayecotes</i> or beans
February	checking of beehives the phase of the moon	fruit trees, quinces difficulty in curing sick people ⁶⁷
March	Herbs the phase of the moon	
April	alfalfa, hemp, and cutting of beehives	
May	filing nails with iron	
June	millet, sorghum, cabbage, fig tree, a reference to Palladius who wrote a book about farming in the 4 th century AD the phase of the moon	mustard, sickness in the bile
July	cypress branch, garlic is medicinal	to take garlic with salt is bad born under the sign of Leo will lead to baldness
August	sow cabbages during Quaresma, Brussel sprouts and turnips, the company of women is dangerous	sowing of garlic, pomegranates and figs, it is very necessary and good to have intercourse with women
September	the phase of the moon, pains in the kidneys and buttocks are most dangerous	maize, wounds will not deteriorate if relieved with obsidian on the flanks, forearms and buttocks
October	the phase of the moon	

⁶⁶ The edition by Jerónimo de Chávez was imported to Mexico in the 1570s. It is likely, however, that the genre was imported sooner after the Spanish arrival in 1519-1521. If the short *reportorio* was added to the *Doctrina Cristiana* after its printing in 1553, then there must have been a Spanish edition of a *reportorio* that was imported to Mexico prior to the 1570s. This imported *reportorio* thus would not necessarily have to be the edition by Chávez, but could very well have been one edited by another author, such as De Salaya or De Li.

⁶⁷ Whenever the Spanish text says that it is dangerous to have a certain condition, the Nahuatl text changes this into it being difficult to cure.

November	the phase of the moon, myrtle, pains in the feet are very dangerous, it is safe to let blood or to take a bath	appropriate to cure a hurting mouth, it is dangerous to bath or cut oneself when calves hurt
December	phase of the moon, cutting reed and withy, all warm things are good	eating bird meat will be very bad

Figure 22. Table of alterations and local elements in the short Nahuatl reportorio and omissions from a Spanish reportorio.

The *tlacuilo* deleted all the phases of the moon that in the Spanish text were attributed with a positive effect on certain agricultural activities. Several of the trees, herbs, and flowers from an Old World descent were deliberately left out of the text. The references to cypress, alfalfa, hemp, millet, and rose were substituted by references to *ayecotes* or beans native to Mexico. All activities with beehives are omitted. There is evidence that certain local types of bees were domesticated and their honey was collected in Mesoamerica, both in the pre- and colonial period (Crane, 1999: 361). The Maya area is particularly rich in information on beekeeping, both from archaeological excavations and from the famous beekeeping pages in Codex Madrid (Žralka et.al., 2014, see particularly 96-101). Therefore, it is unclear why the *tlacuilo* omitted fragments related to the beehives.

Furthermore, the *tlacuilo* made changes in the interpretation of *consejos* for particular months. He changed the conditions that are said to be dangerous from a Spanish perspective, to be difficult to cure in the Nahuatl text. The Spanish *reportorio* suggested that it is medicinal to consume garlic during the month of July, but, with the Nahuatl context in mind, the *tlacuilo* stated that consumption would have malign effects. Even more curiously, the *tlacuilo* changed the advice for the month of August from the source text. Rather than warning his (male) readers to be with a woman during this month, he writes that it is beneficial and even very necessary.

This short *reportorio* in Nahuatl is proof of an (early) interest in the Spanish almanac tradition. The translation must have been made to enable indigenous Nahua speakers to read a selection of the *reportorio* in their own language. It was not the goal of the *tlacuilo* (it is uncertain if he or another individual commissioned the text) to represent the full content of a *reportorio* nor to represent the content of a *reportorio* veraciously. Rather, advice on agricultural practices, medicinal and other *consejos*, as well as Zodiacal information (dispersed in a Spanish almanac) were all concentrated in a single, shortened text. The *tlacuilo* deconstructed the Spanish source text and reconstructed it so as to fit in parts of Mesoamerican ecology and language use.

3.2 Codex Mexicanus

One of the most remarkable references to a *reportorio* in Mexico's colonial literature is the late sixteenth century Codex Mexicanus [Bibliothèque Nationale de France, n° 23-24]. In 1952, German Mesoamericanist Ernest Mengin, working in Copenhagen, Denmark, was the first to publish a complete study of this beautiful 66-page miscellaneous manuscript. Later his German colleague Hans J. Prem in turn commented on the article by Mengin as he felt that Mengin's work lacked a solid explanation of the calendrical data of the first 15 pages (1978: 267, see also his thesis on the correlation between the Mesoamerican and European calendar systems in Prem, 2008: 153-158).

According to Mengin's argumentation (1952: 391), Codex Mexicanus was probably produced in the period 1571-1590 and likely authored by an indigenous *tlacuilo* who knew both the Mesoamerican and European calendar system. Hans Prem argued that the codex was produced no later than 1583 as

several events and dates in the document itself would suggest (1978: 283-284; 2008: 153). Prem argues that even though the pictorial calendar continues until 1590, the final event registered in the calendar is the death of Viceroy Lorenzo Suárez de Mendoza on the 29th of July 1583 (1978: 283). Also, the complete absence of a reference to the introduction of the Gregorian calendar in October 1583 in Mexico may lead one to think that the manuscript was produced before that date (*ibid.*: 283-284). Lori Diel, who published an article on the genealogical pages of the codex, also dates the manuscript between the late 1570s to the early 1580s (2015: 121).

The contents of the manuscript are diverse and of a calendrical, mantic, and historical nature. Codex Mexicanus depicts various astronomical and astrological phenomena inspired by both the Spanish literary tradition and local historical narratives, such as the narrative of the Mexicas leaving Chicomoztoc and establishing themselves in Tenochtitlan in Central Mexico. In this sense, the manuscript represents a combination of European and Mesoamerican perspectives, as is evidenced by the use of both European and Mesoamerican writing systems. Moreover, the manuscript belongs to a period in which alphabetic and pictorial writing were combined to form a single document.

3.2.1 Content derived from the *reportorio* genre and its interpretation

The first 34 pages of the Codex Mexicanus contain a large amount of information which, as previous studies have concluded (Diel, 2015: 123; Diel, 2018: 57-73; Prem, 2008: 153; Spitler, 2005: 209-220), originates from a Spanish *reportorio*. Susan Spitler's and Lori Diel's (2018) work has most extensively established the presence of data from a *reportorio* and the interpretation of the *tlacuiloque* of Codex Mexicanus. Following up on their analysis, I will provide an additional comparison of the Codex Mexicanus and the *reportorio* genre.

3.2.1.1 Pages 1-8: the Saint's calendar and Dominical Letters

The first eight pages of the Codex Mexicanus represent the days of the months of May to December according to their relative position within the seven-day cycle of the Dominical Letters A to G (see Figure 23). The implementation of the Dominical Letter was a tool that was used to determine the weekday on which a particular Catholic feast was to be celebrated. According to the Dominical Letter, each weekday is assigned one of the first seven letters of the Roman alphabet (January 1st being letter "A"); the letter of the first Sunday of the year would be the Dominical Letter for that year. The first eight pages of the document provide a visual representation of the Julian (liturgical) calendar by depicting the days of the year according to their corresponding Dominical Letter. Several of these days – or Dominical Letters – are linked to drawings of Saint Days that were celebrated on those specific days.

The Dominical Letter of that year is indicated by a red letter (in this case the "A"). Important Christian holidays as well as days on which to abstain from the consumption of animal products (indicated by a fish) are depicted in pictography above or below and are also connected to the letters (i.e. dates). Despite damages, some remnants are still discernible of Mesoamerican day signs including dots, alongside indigenous pictography that must have referred to important days in Mesoamerican collective memory. This horizontal sequence of letters is preceded by, from top to bottom, the Zodiac signs that correspond to any given month in both alphabetic writing and pictography, a crescent moon, and the name of the month in alphabetic writing. There are also drawings that are difficult to interpret because they are incomplete, but they appear to include both drawings in a Western style – e.g. of flowers and animals – and indigenous iconography.

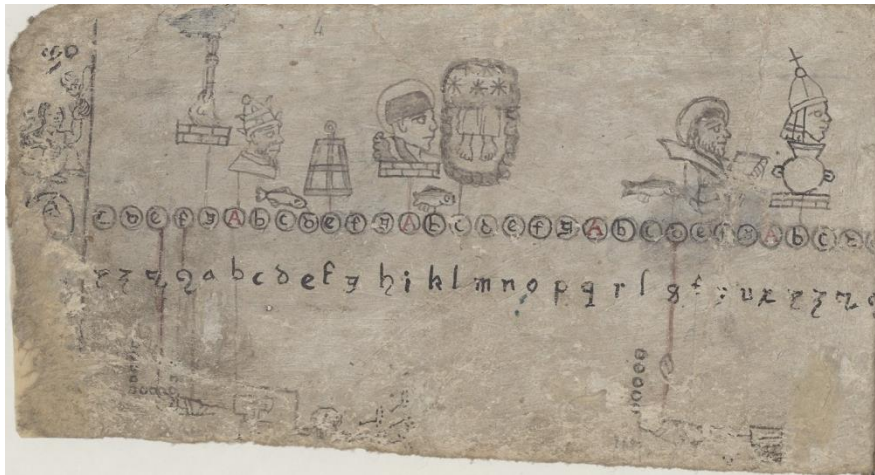


Figure 23. The month of August of Codex Mexicanus

In: Bibliothèque Nationale de France, Paris. Available online: <http://gallica.bnf.fr/ark:/12148/btv1b55005834g>.

Such a presentation of the Western calendar with these references to Dominical Letters, the phase of the moon, and the ruling Zodiac sign is similar to a *calendario* or Saint's calendar within an astrological almanac.⁶⁸ Leaving aside the significance of both the alphabetic and pictographic writing in a single document for just a moment, the dates and Catholic feasts in a table of one of the months that is most complete – August – is the following:

Sequence of days of the month of August [unnumbered in the Codex Mexicanus]	Dominical Letter	Saint Day depicted in codex Mexicanus according to E. Mengin [1952:401]	Saint Day according to reportorio Sancho de Salaya [1542]	Corresponding days in the Aureus Numerus cycle
1	C		Sant Pedro	y
2	D		Sant Esteuan papa & martir	z
3	E		La inuencion de Sant Esteuan	[symbol]
4	F		Sant Justino sacerdote	[symbol]
5	G	Our Lady of the Snow	Sancta Maria dela nieue	a
6	A	13 rd Sunday after Trinity Sunday. ⁶⁹ Pope Sixtus I	La transfiguracion del Señor	b
7	B		Sant Donato obispo	c
8	C		Sant Ciriaco Obispo & confessor	d
9	D		Sant Roman. Uigilia	e

⁶⁸ And also present in the *Doctrina Cristiana* by Pedro de Gante [1553] for example.

⁶⁹ The Sunday of the celebration of the Trinity falls on the first Sunday after Pentecost and thus is a moveable feast.

10	E	Laurentius	Sant Llorente martir	f
11	F		Sant Tiburcio & Susanna	g
12	G		Sancta Clara virgin	h
13	A	13 rd Sunday after Trinity Sunday. Hipplytus	Sant Ypolito con sus compañeros	i
14	B		Uigilia. Sol en virgin	j
15	C	Assencion of Holy Virgin Mary	La assumpcion de Nuestra Señora	k
16	D		Sant Roconio Obispo	l
17	E		La octaua de San Llorente	m
18	F		Sant Agapito martir	n
19	G		San Luys Obispo & confessor	o
20	A	14 th Sunday after Trinity Sunday	Sant Bernardo abad	p
21	B		Sant Priuado martir	q
22	C		La octaua de Nuestra Señora	r
23	D		Uigilia	s
24	E	Apostle Bartolome	Sant Bartolome apostol	t
25	F		Sant Luys rey de Francia	u
26	G		Sant Seuerino papa	v
27	A	15 th Sunday after Trinity Sunday		w
28	B	The choking of Saint John the Baptist ⁷⁰	Sant Augustin Obispo	x
29	C		La degollacion de Sant Johan baptista	y
30	D		San Feliz & Audacio martires	[symbol]
31	E			[symbol]

Figure 24. Table that compares the Dominial Letters and Saint Days for the month of August in Codex Mexicanus and Reportorio by De Salaya [1542].

These pages of the codex Mexicanus are copies of a *reportorio*'s standard *calendario*. However, the *tlacuilo* selected certain dates from the liturgical calendar and decided to leave out others. The Tropenmuseum manuscript excludes the Saint's calendar altogether, and no attempt is made to relate or compare the Christian and Mesoamerican dates.

On the ninth page of codex Mexicanus, the *tlacuilo* tried to establish a correlation between the Julian calendar and the Nahua system of time reckoning with two calendar wheels. In the center of the left wheel we find Apostle Saint Peter holding the keys to Heaven. Two circles surround him, the inner one contains the seven Dominical Letters and the outer one the 28 letters of what is presumably the lunar

⁷⁰ The image of Saint John the Baptist is attached to the letter 'b' and thus the day preceding the day on which E. Mengin decided to locate the celebration. However, I have decided to leave the error in the table.

cycle (Mengin, 1952: 404). The calendar wheel on the right contains the four Year Bearers of the Mesoamerican calendar. The function of the four Year Bearers was to distinguish one solar year from another. The 365-day calendar year was named after one of the twenty day signs of the Mesoamerican calendar. Mathematically, only every fifth day sign could designate a Year Bearer: House, Rabbit, Reed, and Flint or the third, eight, thirteenth, and eighteenth day sign (Anders, Jansen & Reyes Garcia, 1993: 57-59). If we read the calendar wheel and the year bearer signs according to its sequential order within the cycle of 20 day signs, then we would have to read the wheel counter clockwise. This would mean that we would not be able to read the calendar wheel on the right side of the page in the same way as the calendar wheel to its left, because one would have to be read clockwise while not the other. Interlacing the two calendar wheels would thus not be possible, but that would not necessarily have been the intent of the *tlacuilo* who created the Codex Mexicanus.

3.2.1.2 Page 10: an Aureus Numerus table

Also directly copied from a *reportorio* is an extensive table of the Aureus Numerus cycle on page 10 (see Figure 25). On page 11, the author provides a table of six columns and six rows that display, from top to bottom, the Zodiac signs (beginning with Aquarius) and then a variety of symbols, which appear to be phases of the moon and one of the four elements (hot, cold, dry, and humid).

Tabla. xxxr.

La tabla siguiente es para sa
ber en que signo anda la luna cada dia. Y nota que en este año de M.D.L.ii. En meso. xliii. de aureo numero, y luego bolueras a. xv. y otro año seran. x. y así procederas 5 año en año hasta llegar a. lxx. y tomar luego al principio.

Aureus Numerus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Aries	y	n	c	v	l	o	l	o	l	o	l	o	l	o	l	o	l	o	l	o
Aries	3	o	d	u	m	a	s	i	z	q	f	r	n	b	t	k	o	r	g	
Aries	z	p	e	r	n	b	t	k	o	r	g	y	o	c	v	l	a	f	b	
Taurus	o	q	f	y	o	c	v	l	a	f	b	z	p	o	u	m	b	s	i	
Taurus	a	r	g	z	p	o	u	m	b	a	i	z	q	e	r	n	c	t	k	
Gemini	b	s	b	z	q	e	r	n	c	t	k	o	r	f	y	o	d	v	l	
Gemini	c	e	i	o	r	f	y	o	d	v	l	a	f	g	z	p	e	u	m	
Cancer	o	t	k	a	f	g	z	p	e	u	m	b	s	b	z	q	e	r	n	
Cancer	e	y	l	b	s	b	z	q	e	r	n	c	t	i	o	r	g	y	o	
Leo	f	u	m	c	t	i	o	r	g	y	o	d	v	k	a	f	b	z	p	
Leo	g	e	n	d	v	k	a	f	b	z	p	e	u	l	b	s	i	z	q	
Leo	b	z	q	e	u	l	b	s	i	z	q	f	r	m	c	t	k	o	r	
Virgo	i	z	p	f	r	m	c	t	k	o	r	g	y	n	d	v	l	a	f	
Virgo	k	z	q	g	y	n	d	v	l	a	f	b	z	o	e	u	m	b	s	
Libra	l	o	r	b	z	o	e	u	m	b	s	i	z	p	f	r	n	c	t	
Libra	m	a	s	i	z	p	f	r	n	c	t	k	o	q	g	y	o	d	v	
Scorpi	n	b	s	k	o	q	g	y	o	d	v	l	a	r	b	z	p	e	u	
Scorpi	o	c	t	l	a	r	b	z	p	e	u	m	b	s	i	z	q	e	r	
Sagitari	p	o	y	m	b	s	i	z	q	e	r	n	c	s	k	o	r	g	y	
Sagitari	q	e	n	c	a	k	o	r	g	y	o	d	l	a	f	b	z	p		
Sagitari	r	f	z	o	d	l	a	f	b	z	p	e	y	m	b	s	i	z		
Capri	f	g	y	p	e	y	m	b	s	i	z	q	e	r	n	c	t	k		
Capri	s	b	z	q	f	u	n	c	t	k	o	r	g	r	o	d	v	l	a	
Aquari	t	i	z	r	g	r	o	d	v	l	a	f	b	y	p	e	u	m		
Aquari	v	k	a	f	b	y	p	e	u	m	b	s	i	z	q	e	r	n		
Piscis	u	l	a	s	i	z	q	e	r	n	c	t	k	o	r	g	y	o		
Piscis	x	m	b	t	k	e	r	g	y	o	d	v	l	a	f	b	z	p		

Figure 25. Aureus Numerus table from Codex Mexicanus and a Reportorio [1554, probably edited by De Salaya].

Codex Mexicanus see <http://gallica.bnf.fr/ark:/12148/btv1b55005834g> and *reportorio* [1554] see <http://hdl.handle.net/10366/82575>, University of Salamanca, Spain.

3.2.1.3 Page 12: a drawing of Zodiac Man

A Zodiac Man is depicted on page 12 (see Figure 26). Only the male figure and some of his organs and parts of the *figura de la amistad* are visible, but we can infer that all of the planets and Zodiac signs that should have been to its right and left respectively have been worn away. Still visible on the margins of the page are some stylized faces that look to their left, but as they do not seem to fit the theme of the

page, they seem to have no relation to Zodiac Man. There are several pages in the codex that seem to indicate that the pages of the codex were reused or erased to make way for its current content. For example, on page 16, parts of the upper layer of a genealogy of Mexica rulers from the Aztec capital Tenochtitlan are scraped off and show a European style, up-side down drawing of a sun (his friendly face is smiling at the reader) which is in parts hidden underneath the new genealogical scene. So, it appears that the material of the codex was used and re-used, or at least scenes that were erased and pages prepared for a new layer of pictographic writing.

According to Lori Diel however, the poor conditions of several of the pages of the Mexicanus, has nothing to do with whitewashing (2018: 66). Rather, she argues that these pages were used so frequently that this is what we are left with (*ibid.*: 58; 66). In addition, Diel suggests that the introduction of Old World diseases and an epidemic right before the codex was made speeded up the necessity to know European ways of curing (*ibid.*: 58).

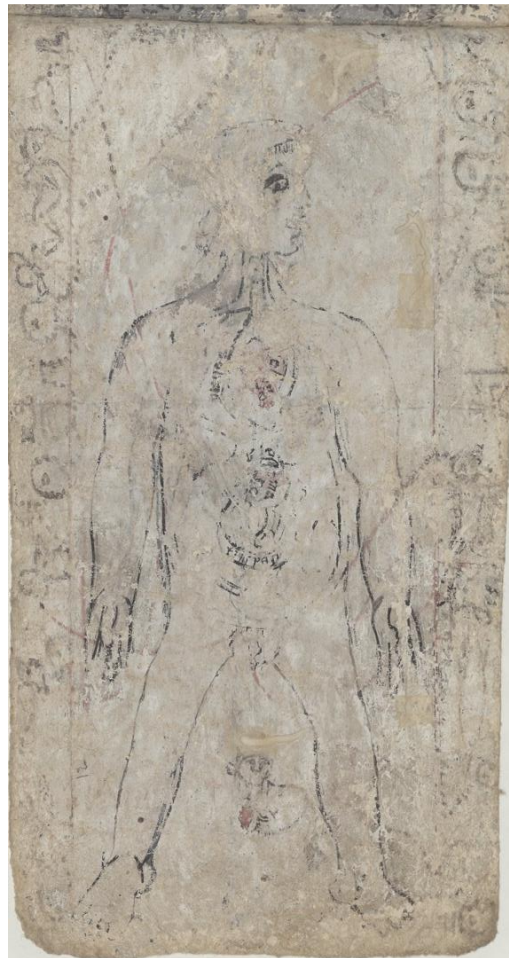


Figure 26. Image of a Zodiac Man in Codex Mexicanus, page 12.

Source: <http://gallica.bnf.fr/ark:/12148/btv1b55005834g>

Pages 13 to 88 are calendar-related: pages 13 and 14 hold a section of 66 days of the *tonalpohualli* calendar (a 260-day rendition of the calendar), so it would seem likely that the other half of this 260-day calendar is missing in the document (Prem, 1978: 277). Pages 15 to 88 are an account of historical events of the Mexicas. Pages 89 to 102 are an incomplete *tonalpohualli* or 20 periods of 13 day signs. The lay-out of these pages are similar to the early colonial codex Borbonicus and thus according indigenous stylistic conventions (Prem, 1978: 280). The *tlacuilo* however, decided to write the names of the day signs in alphabetic writing in Nahuatl rather than drawing day signs. Also, the numerals are

not drawn according to the traditional bar and dot system, rather, Arabic numerals 1 to 13 appear alongside the left and lower margins of the page. The drawings of indigenous deities and mantic symbols, which would make a *tonalpohualli* useful for someone who would be able to read and interpret this ritual calendar, are faded to the extent that one wonders if the pages were ever truly finished.

3.2.1.4 Page 24-34: textual descriptions of the twelve Zodiac signs

In addition to the Saint's calendar, the Aureus Numerus table, and Zodiac Man, the *tlacuilo* or *tlacuiloque* of Codex Mexicanus included other sections of a *reportorio* as well. Codex Mexicanus' historical account is depicted in Central Mexican pictographic style from page 16 onwards. The pages 24 to 34 (accounts of the years 1201-1266 AD) include alphabetic writing below the drawings and contain astrological information in Nahuatl. Prem's work on the Codex Mexicanus (1988; 2008) does not refer to these texts; and Mengin provides only a transcription and preliminary translation of each fragment. These texts are difficult to read for two reasons. First, the margins are damaged, and words have faded after more than 400 years. Second, the *tlacuilo* uses the difficult paleography and orthography. The latter used the letter 'n' as if it were a 'u.' and the 'v' as a 'u'. Moreover, the letters are not rounded off as well as they could have been, so it seems that the *tlacuilo* had an unsteady hand.⁷¹

Mengin himself mentions that his translation approximates the text in Nahuatl, subject to revision (1952: 423). Lori Diel (2018) published her transcription of the Zodiac signs in codex Mexicanus. She admits that a transcription and translation is difficult due to the poor conditions of the pages (Diel 2018: 70-72, 171-174). Mengin's study did not relate this content of the codex to the genre of the *reportorio*, and as such, does not contain any comparisons with fragments of a Spanish almanac. Diel tries to translate the sentences for each Zodiac sign (ibid.: 70-71), however does not succeed to go beyond "And the [number of sign], its name [name of sign], and someone who is born during that time, he...". I will try to go a bit beyond that for Aquarius, below:

On Aquarius:

[p.24]

*/Δ yn/ aqui ypa tlacati yn itoca Aqualliyos yevuatli
yn amo vel mitçi/minaz/
ye yca Aquariyos ytla ypa mitçiminaz ye miquiz
Auh /.../y nemiz (?)
ynic motlayecoltiz yni quitemoz yn itechimona /.../*

the one who was born in the one called Aquarius, he is the who can't stab fish because if he stabs fish in Aquarius, he will die and [...] he is the one who will live so as to provide for himself, this one will seek his [mother-in-law?]

*Auh ytla cana ypa moqueçaz yn eetli y
ceca temama /ni?/
Auh /.../e ni mochivaz
ye yca ca ypa tlacat yn Aquari[yos]
Auh in icha mochiv yez yni tlacat*

and will somehow stand [...] blood he is one who very much is a carrier of others and [...] it will happen therefore he was born in Aquarius and that which happened in his home, it will happen, this one was born and he will raise turkeys, or sheep, or cattle, or [...] many can be living in his home

The fragment is difficult to translate. In fact, the Zodiac sign of Aquarius is the only fragment that is decipherable with a fair amount of reliability. The transcription and translation made here are different

⁷¹ I thank Raul Macuil Martínez and Søren Wichmann for their observations.

from Mengin's (see Appendix E). Nonetheless, we can compare both the transcription and translation above and those from Mengin to similar fragments from several *reportorios* that the *tlacuiloque* could have consulted. See also Appendix E for full transcriptions of the sign of Aquarius from the editions by Jeronimo de Chávez [1584] and Sancho de Salaya [1542] and Izcatqui. For this analysis, I have also included the corresponding fragment from the Tropenmuseum manuscript. As is evidenced in Appendix E, the *tlacuilo* of Codex Mexicanus did not copy the descriptions of the Zodiac signs from any of the *reportorios* that I compared it to. This is supported by Diel (2018: 71-72) However, to the extent that the text is translatable, it does read as if it was inspired by a European almanac – not only in the descriptions of the ways in which individuals born under the Zodiac signs are affected by them, but also in manners of formulation.

The text of the twelve Zodiac signs seems to have been added where there happened to be left-over space on the pages. The *tlacuilo* begins his discussion with Aquarius and not with Aries as is the case for the Spanish almanacs (see also Diel 2018: 72). Instead of following what is considered the first House of the Sun on the day of Spring equinox or March 21st – also symbolically the beginning of a new cycle of life – the *tlacuilo* decided to start with the sign that is the House of the Sun in January – Aquarius – and thus the beginning of a year cycle of the Julian calendar. Lori Diel argues convincingly that the combination of a genealogy and a text that is derived from a *reportorio* mimics the royal lineage of Spain (2015: 124). These lineages are included in some of the Spanish almanacs that were well-known in colonial Mexico in the sixteenth century. The Spanish lineage in the almanacs from the Old World is related to a Roman decent – a pagan past but glorified nonetheless. For a literate indigenous scribe and reader, Diel argues that the indigenous past was a pagan parallel to the Roman past and therefore also “a legitimate foundation for the Christian present” (*ibid.*: 124). The *tlacuiloque* of codex Mexicanus conveyed both local history and ventured into a new genre that had a certain appeal to them.

3.3 Fonds Mexicain 381

Fonds Mexicain 381 is part of the collection of Mexican manuscripts in the Bibliothèque Nationale in Paris.⁷² This manuscript of 60 folios was once owned by Italian scholar Lorenzo Boturini in the eighteenth century as part of his collection. It was probably shipped to Paris in 1840 after it was bought in Mexico by French collector Joseph-Marie Aubin. Similar to Codex Mexicanus, Fonds Mexicain 381 is the result of miscellaneous efforts, presumably written by three individuals according to the different styles of handwriting (Tavárez, 2000: 8 & 2002: 70). One of these three individuals wrote the first and final part of the document and this seems to suggest that its current composition was intended; no additions were added after it was owned by Boturini (Tavárez, 2000: 8).

Manuscript Fonds Mexicain 381 is a collection of different subjects of text and languages. For a short overview of the content of the complete manuscript, I refer to the work by Susan Spitler (2007: 192) and David Tavárez (2000: 10; 2011: 133). The contents of both do not fully coincide and, interestingly, the authors do not refer to each other's work. As I focus on particular pages within Fonds Mexicain 381, I will use the summary of the content of the manuscript by Tavárez as my main reference. In my analysis of the folios that are of main concern to my study, I combine my own observations with both Spitler's and Tavárez' work as they complement each other. The manuscript begins with a set of Nahuatl meditation prayers, a devotional listing of the thorns in the crown of Christ, a *per signum crucis*

⁷² There are several scholars who have examined the manuscript. Alfonso Caso (1967) and Robert Barlow (1994) have studied the correlation between the Matlatzinca calendar and the several months of the Gregorian calendar in Fonds Mexicain 381. Charles Gibson & John Glass (1975) have commented on the material aspect of the manuscript. Susan Spitler (2007) and David Tavárez (2000; 2003; 2011) both briefly analyze the overall content of the manuscript and provide a more detailed discussion of the content that the *tlacuiloque* derived from a *reportorio*.

in both Nahuatl and Otomí (Hñahñu), a translation in Nahuatl of a Latin text dealing with the life of Saint Nicolas Tolentino, and several prayers in Latin, Spanish, and Nahuatl. These folios are then followed by calendrical information. The *tlacuilo* correlates the months of March or April (according to Spitler and Tavárez respectively) through December of the Gregorian calendar to the twenty Matlatzinca day signs; while also noting the Holy days that occur in each month. The folios I am mostly interested in are folios 47 to 54. Here, the *tlacuilo* briefly recounts the Zodiac signs related to the days and month of the Gregorian calendar. The final folios are dedicated to the Christ's last supper or Eucharist (Tavárez, 2011: 133).

The combination of Nahuatl, Otomí, and Tarascan (P'urhépecha) references to the calendar might suggest that the manuscript was produced by Nahua speakers who lived near Otomí and Tarascan areas to the west and northwest of the Toluca Valley (possibly the jurisdictions of Metepec, Temascaltepec, and Queretaro) (Tavárez, 2000: 8). As for dating the manuscript, the list of Holy Days on folio 24 is presumably provided for the year 1633. The *tlacuilo* mentions another year on page 45, in a note on the feast of the Assumption in 1639. There is third indication of when the manuscript might have been in use in a note that a particular girl named Catarina ran away from home in 1654 (*ibid.*).

3.3.1 The Winds and the Zodiac Signs

Page 47 contains a drawing of a double-lined circle within a decorated frame of tree stems with cut off branches. Within the circle there are faded words written in red that together form a cross. On the left, we can read *septe[nt]rion*, or the northern wind direction. The word on top reads *orie[n]tal* or the east. Taking into account the four wind directions with the north to the left, the other two words that are more difficult to read, would then be *meridian* (South) and *occidental* (West). My translation below contains the description of the *tlacuilo* of not four, but of two Winds. Susan Spitler's work contains a transcription and translation of pages 47 to 54. The fragments that I have translated are quite similar to hers, therefore I do not include a full transcription of translation up to page 54 of Fonds Mexicain 381.

[f.47]

*Nica[n] pohualo ynahuitin eecame⁷³ ynhuitze
cequi totoqui⁷⁴ cequi yztic
cequi concolliztli⁷⁵ yn quihualhuica centlamatli⁷⁶
onpa huallauh *oriete*⁷⁷
ynic otlamatli⁷⁸ onpa huallauh *metiotia*⁷⁹ yn
iniquetlamatli⁸⁰ onhuallauh *occitente*⁸¹
ynic nauhtlamatli⁸² onpahuallauh *septe[n]trion*
ynehecame mochi
cencetlamatli⁸³ yn quihuica*

Here it is counted, the four winds come
some [are] warm, some [are] cold
some illness they bring
one, there the East approaches⁸⁶
second, there the South approaches
third, there the West approaches
fourth, there the North approaches
all winds
it brings all things

⁷³ Read 'ehcame.'

⁷⁴ Read 'totonqui.'

⁷⁵ Read 'cocoliztli.'

⁷⁶ Read 'tlamantli.'

⁷⁷ Read 'oriente.'

⁷⁸ Read 'inic ontlamantli.'

⁷⁹ Read 'medio dia', midday or South.

⁸⁰ Read 'inic yeitlamantli.'

⁸¹ Read 'occidente.'

⁸² Read 'nauhtlamantli.'

⁸³ Read 'tlamantli.'

⁸⁶ I.e. the Wind from the East approaches.

<i>yn orie/n/te hualauh yehecatl yn cenca totoqui</i> ⁸⁴	the East, it brings the wind, it is very warm
<i>ce[n]ca hueca</i>	it is very far away
<i>mochi quitotonillia yn tlalticpactli cenca</i>	it warms all [on] earth a lot
<i>yehuacauh</i>	some time ago
<i>yn occe[n]tetl yehecatl ce[n]ca qualli</i>	the next wind is very good
<i>huel totechmonequi qualli</i>	we want something good for ourselves
<i>yn occe[n]tetl yehecatl</i>	the next wind
<i>onpa hualauh yn tocyoca metiotia</i> ⁸⁵	there it brings [what] is called the South
<i>yztic</i>	[something] cold
<i>amo totechmonequi hual itechnica cocoliztli</i>	we do not want for ourselves, here it is with us, illness

For reasons that are unknown, the *tlacuilo* abruptly ends his description of the Winds after a description of the Eastern and Southern winds. He describes how there are four Winds – some cold, some warm – and how some can carry illnesses. The sequence with which he lists the four winds is the same as in a *reportorio de los tiempos* (East, South, West, and North). The wind from the East is said to be beneficial. The second wind from the South is said to be a cold wind and presumably brings forth illnesses. A positive association with the Eastern wind and a negative one with a Southern wind is precisely the characteristics these winds are said to have in a *reportorio*.⁸⁷ The *tlacuilo* describes in general terms the beneficial or negative associations of the wind, and leaves out all specific recommendations and further information about the body parts most affected by it.

The top half of page 48 has some unclear writing in three lines. The first line is a part of the alphabet from B to N; the significance of the second and third line is unclear to me. It seems that the writing on this half of the page was added after the text on the lower half had already been there for some time. Pages 48 to 54 are an enumeration of the 12 Zodiac signs and description of how they each relate to the seven weekdays, the seven planets, and the months. The *tlacuiloque* were clearly inspired by one or more *reportorios*. However, they adapted such a text or set of texts to a Nahuatl cultural context, and so turned the original into a new and reconstructed one. There are several indications of this methodology. First, each Zodiac sign is termed according to its Spanish terminology while at the same time translated and interpreted into Nahuatl. Thus, the twin brothers of Gemini became *tlamatinime* or Wise Men; Libra became *pochtecatl* or a Merchant (the iconography of a scale is thus associated with the careful weighing of merchandise); and Sagittarius was described as a *tlacamaçatl* or Deer Man. Figure 27 compares the terminology of the Zodiac signs in three Nahuatl *reportorios*. Apparently, the translator of what is presumably the oldest Nahuatl *reportorio* out of the three – the appendix of the *Doctrina Cristiana* – chose to minimize his amount of translations of the Zodiac signs in Nahuatl or a closest equivalent in Nahuatl. He only did so for Leo, which became *ocelotl* (jaguar); Virgo, which became *yehpochtli* (a young woman); Scorpio, which is explained as *gollotl* or *colotl*; and Sagittarius, which became *tlaminqui* or someone who pierces. Fonds Mexicain 381 (mid seventeenth century) and Izcatqui (mid eighteenth century) share the most similarities: each Zodiac sign is translated into Nahuatl or the closest equivalent from the perspective of the *tlacuilo*. The Zodiac signs of Gemini, Cancer, and

⁸⁴ Read ‘totonqui.’

⁸⁵ Read ‘medio dia’, midday or South.

⁸⁷ According to Susan Spitler (2007: “In comparison with a typical Spanish text (such as that of Sancho de Salaya 1542), the Nahuatl author has conflated the natures of the eastern and southern winds (as a result of miscounting the number of winds he has described.” I do not follow her argumentation that the author conflated the two winds. De Salaya’s text on the first and second wind reads as follows: “El primero viento viene de oriente de donde sale el sol: su naturaleza es caliente y produce muy claro tiempo: [...] estos vie[n]tos son buenos y sanos [...]. El segu[n]do viento viene de medio dia: y es frio y humido [...]. Estos vie[n]tos son frios y humedos [...]. Estos vientos son muy dañosos a n[uest]ros cuerpos [...]”.

Libra are translated differently. Gemini in Fonds Mexicain 381 is perceived as Wise Men, whereas in Izcatqui, it is described for its iconography: two children. Leo in Fonds Mexicain 381 is described as *tequani* “wild beast” and in Izcatqui as *ocelotl*; both are names in Nahuatl for the jaguar. Cancer is either a crayfish or a crab. Even though Cancer is in fact a crab, its iconography would lead one to think it is a small lobster. Finally, Libra in Izcatqui is a scale in Nahuatl terminology; apparently the *tlacuilo* of Fonds Mexicain 381 related the scale to those who would use such an item.

Zodiac sign	Fonds Mexicain 381 (after original)	ms 3523-2 (after original)	Reportorio Doctrina Christiana (after López Austin 1976)
Aries	aries <i>ychcatl</i> “sheep”	Aries <i>oquichichcatl</i> “male sheep” <i>carnero</i> “ram”	aries
Taurus	taurus <i>quaquahe</i> “ox, cow, bull”	Taurus <i>quāquahê</i> “ox, cow, bull”	tauros
Gemini	geminis <i>tlatatinime</i> “Wise Men”	Geminis <i>omentin pipiltzintin</i> “two children” (REV)	geminis
Cancer	cancer <i>acocilin</i> “crayfish”	Cancer <i>tecuictli</i> “crab”	gancer
Leo	leon <i>tequani</i> “wild beast” ⁸⁸	Leo <i>ōcēlōtl</i> “jaguar”	reonis <i>yn ocellotl</i> [ocelotl] “jaguar”
Virgo	Virgo <i>ychipochtli</i> “young woman”	Virgo <i>ychpochtli</i> “young woman”	virgo <i>ychpochtli</i> “young woman”
Libra	libra <i>pochtecatl</i> “Merchant”	Libra <i>tlatamachihualōni</i> “scale” (composed form)	llibraxo
Scorpius	Scorpio <i>collotl</i> “scorpion”	Scorpio <i>cōlōtl</i> “scorpion”	Esgor pros <i>gollotl</i> [colotl] “scorpion”
Sagittarius	sangitarius <i>tlacamaçatl</i> “Deer Man”	Sagittarius <i>maçātl</i> “deer” <i>cahuallo, centauro</i> “horse”, “centaur”	<i>yntlamiqui</i> [yn tlaminqui] “archer” ⁸⁹
Capricornius	capricornos <i>tentzone</i>	capricornius <i>quāquauh tēntzon</i>	gaprigornos

⁸⁸ *tequani* literally means “someone [i.e. an animal] who eats people”.

⁸⁹ *mini*, the verb “to prick, pierce something” (Karttunen, 1983: 148).

	“someone with a beard”	“horned animal with beard” <i>cabra</i> “goat”	
Aquarius	aquarius <i>ateteca</i> “by the water”	Aquarius <i>cetlacatl atetecac</i> “one person by the water”	aquirios
Piscis	Piscis <i>michi</i> “fish”	Pisces <i>Michintin</i> “fish”	pisçes

Figure 27. Table with the names for the twelve Zodiac signs in Fonds Mexicain 381, ms 3523-2 and the short reportorio from the Doctrina Cristiana.

On page 49, we read the following:

<i>Domigo Raphael leon totoqui</i>	Sunday; Raphael; Leo; warm
<i>Lunes grabiel cacex atl yztic yeecatl totoqui</i>	Monday; Gabriel; Cancer; water; cold; wind; warm
<i>martes lamael scorbius aries atl totoqui yeecatl yztic</i>	Tuesday; Ismael; Scorpio; Aries; water; warm; wind; cold
<i>miercoles migael virgo geminis tlalli yztic yeecatl totoqui</i>	Wednesday; Michael; Virgo; Geminis; earth; cold; wind; warm
<i>Jueves san guial sangitarius piscis tetl⁹⁰ totoqui ynatl yztic</i>	Thursday; Sachiël; Sagittarius; Pisces; fire; warm; water; cold
<i>viernes amael libra Taurus yeecatl totoqui tlalli yztic</i>	Friday; Amael; Libra; Taurus; wind; warm; earth; cold
<i>sabado Gabriel gabricornus aquarius yeecatl yztic tlalli totoqui mochi totoqui tlaticpactli</i>	Saturday; Gabriel ⁹¹ ; Capricorn; Aquarius; wind; cold; earth; warm; very warm on earth

In 2002, Victoria Bricker and Helga-Maria Miram published their transcription, translation, and commentary on a Yucatec Mayan manuscript which is, to a large extent, inspired by a *reportorio* (see more on this later in the chapter). They argue that a correlation between the seven planets, the days of the week, and the seven archangels is one that has been established since the medieval period (Bricker & Miram, 2002: 31). According to Bricker & Miram, Raphael was associated with Sunday; Gabriel with Monday; Sammael with Tuesday; Michael with Wednesday; Sachiël with Thursday; Anael with Friday; and Cassiel with Saturday. The medieval association between one of the seven archangels and the seven planets (and weekdays) is also present in *reportorios*, see for example Andrés de Li (1529: 79-80) and Sancho de Salaya (1542) (*ibid.*: 150 and Spitler, 2005: 223). Page 38 of the Chilam Balam of Kaua lists the seven planets in relation to the seven angels (Bricker & Miram, 2002: 150).

The *tlacuilo* of Fonds Mexicain 381 left out the association of the planets with the angels and added other associations to the weekdays: Zodiac sign, element, and an either hot or cold state. In the Spanish *reportorios* that I have consulted, there is, as Susan Spitler (2005: 223-4) also argues, a correlation between the planets and the Zodiac sign. However, on folio 84r, Izcatqui not only relates the planets to the Zodiac signs, but also to the days of the week, an element, and a hot or cold state of being.

⁹⁰ Read *tletl* ‘fire’ and not *tetl* ‘stone.’

⁹¹ The archangel associated with Saturday should have been Cassiel.

Izcatqui omits the seven archangels and mentions the seven planets not according to the order of the seven days, but according to the first seven spheres of Ptolemy, starting with the seventh sphere Saturn, followed by Jupiter, Mars, the Sun, Venus, Mercury, and the Moon. The associated Zodiac signs, elements and state coincide to a large degree with Fonds Mexicain 381:

folio 84r

<i>/Satur/nos Sabato caprico[r]nius tlalli yztic</i>	Saturn; Saturday; Capricorn; earth; cold
<i>aquarius hehecatl totoq[ui]</i>	Aquarius; wind; warm
<i>/Ju/piter Juebes Sagittarius tlel totoq[ui]</i>	Jupiter; Thursday; Sagittarius; fire; warm
<i>piscis atl yztic</i>	Pisces; water; cold
<i>/Mar/s martes Scorpius atl yztic</i>	Mars; Tuesday; Scorpio; water; cold
<i>Aries tlel toto[qui]</i>	Aries; fire; warm
<i>Sol domingo leo tlel totoqui</i>	Sun; Sunday; Leo; fire; warm
<i>Venus viernes libra hehecatl /totoqui</i>	Venus; Friday; Libra; wind; warm
<i>Taurus tlalli /yztic</i>	Taurus; earth; cold
<i>mercurius miercoles virgo tlalli yztic</i>	Mercury; Wednesday; Virgo; earth; cold
<i>geminis heh/e/catl ttq[ui]</i>	Gemini; wind; warm
<i>luna lunes cacer atl yztic</i>	Moon; Monday; Cancer; water; cold

3.3.2 Cultural translation and the presence of Mesoamerican cultural memory

Both Tavárez (2000; 2011) and Spitler (2005) acknowledge that the *tlacuiloque* were clearly familiar with a European almanac. However, they both also argue that the *tlacuiloque* adjusted the text to a Nahuatl cultural background and readership. The emphasis on the seven weekdays instead of the planets as the prime element for correlations is continued to page 54. On page 49, the *tlacuilo* continues to record the seven days; and each day except for Sunday, is linked to a planet. What then follows is a list of characteristics of individuals; this can either be characteristics related to a profession (astrologer, doctor), a personal trait (gentlemen, hard worker), or a biological feature (sterile). It is not clear whether these characteristics are linked to the planets in terms of the presumption that such characteristics are influenced by their state or if the planets are seen as the guardians of the people with these characteristics who were born on one of the seven weekdays previously given.

There is no doubt, however, about how we should interpret pages 50 to 54: the day of the week on which one is born is taken as unambiguously defining one's faith in life. The seven days are called the first to the seventh birth, and, except for Leo,⁹² all of the Zodiac signs are left out of the text. So, whereas in a Spanish *reportorio* one's personality is defined by the Zodiac sign under which one is born, the Nahuatl text of Fonds Mexicain 381 completely redefines the function of the text itself. Thus, the *tlacuilo* deliberately reshaped the text so that it was not formulations of space (constellations) which were of influence on human affairs, but of time (the seven symbols for the cycle of the rise and setting of the Sun within a larger Moon cycle from an Old World tradition).

Why did the *tlacuiloque* decontextualize a Spanish *reportorio* and recontextualize part of its content in this Nahuatl *reportorio* in this way? According to Spitler:

⁹² Tavárez describes how there are seven paragraphs for the days of the week and each paragraph shortly analyzes the planet and Zodiac sign 'born' on that day. That is indeed what the Nahuatl text claims in the first sentence of the paragraph on Sunday on page 50: *Ynica micuiliuhtica ynizqui tlamatli yplanetas ytlacatiliztli ynquenica Leportorion ypa tlacaliztli nican*. Tavárez also provides a transcription and translation of the first day, Sunday. Therefore, he does not recognize that even though Zodiac sign Leo is explicitly mentioned in one paragraph, the other Zodiac signs are not part of the text and thus do not seem to have an influence of the course of life of an individual.

“[...] [T]he Nahua author’s selection of these particular texts, as well as his explanation of the context in which he would consult them, indicate he considered these new concepts and divinatory practices congruent with traditional practices, and thus useful substitutes or complements. The author’s translations of these texts bring them closer in line with traditional Central Mexican calendrical and divinatory practices. Although the concepts contained within these texts are cultural borrowings from the Spanish, this Nahua author modified these concepts so that they were more congruent with traditionally accepted notions of the calendar and its divinatory potential.”

(2005: 229-230)

Spitler argues that by changing the correlation from Zodiac signs to “day signs” (i.e. to the seven days of the week of the Gregorian calendar), the author was better able to practice the divinatory capacities of the text. I would argue that by making this change the new text was indeed able to remind those that would have consulted it of a pre-colonial practice and ideology. This would suggest that an indigenous divinatory system was still very much part of the cultural memory of not only the *tlacuiloque* but also of their readership.

3.4 Appropriation of a *reportorio* in Codex Huichapan in Otomí

Codex Huichapan is a manuscript with traditional pictorial elements and alphabetic writing in Otomí, spoken mainly in the states of Hidalgo and Puebla. This seventeenth century document has been studied by few. Alfonso Caso was the first scholar to encounter the codex in 1928 and he presented the rare writing in Otomí at the 23rd Americanist Congress in New York that same year. His commentaries of 1928, 1955, and 1967 were bundled together and published in 1992 along with a facsimile and introduction by Óscar Reyes Retana.

There are other publications that make reference to Codex Huichapan. For example, the works of Jacques Soustelle (1937), Pedro Carrasco Pizana (1950), and Manuel Alvarado (1976) all include reference to and consideration of the codex. In his commentaries, Caso compared his ideas with the ones proposed earlier by Soustelle and Carrasco (Ecker, 2001: 10). A complete transcription and translation have been made by Lawrence Ecker, and although he himself never got to publish his work, the editors Yolanda Lastra and Doris Bartholomew did eventually transform his text into a post mortem publication in 2001. In 2008, Hanns Prem included the codex in a discussion on colonial calendars that, according to him, are artificial creations produced to either salvage or (and these reasons are overall what Prem believes to have been the main objectives) to eliminate and change indigenous cultural practices and ideologies (2008: 196). I will come back to his argumentation later, but for now I should mention one final set of relevant publications dealing with codes Huichapan: the investigations of David Charles Wright Carr (2011; 2012), who, as an affiliated scholar of the University of Guanajuato in Mexico, undertook an in-depth study of Otomí language and culture.

According to Caso, Codex Huichapan was authored by Franciscan priest Felipe de Santiago, who was probably also Otomí himself (Caso, 1992: 35). The document is partly damaged, and some pages appear to be missing or, perhaps, the author did not finish particular sections. In general, the manuscript has a historic character and is divided into four sections. The first section is written in alphabetic writing in Otomí and informs the reader about the convent of San Mateo in Huichapan in the state of Hidalgo during the periods 1539-1618 and 1629-1632. The second section is a two-page collection of twelve toponymic glyphs of communities in the province of Xilotepec. The third section is of particular interest for my investigation here, because it is a reference to the *reportorio*. The final and largest section of the manuscript contains historical information in pictographic style for the years 1403 to 1528. These pages narrate historic events of Xilotepec according to year signs and to pictographic descriptions of events alongside glosses in Otomí and, to a lesser extent, Nahuatl. The arrival of the

Spanish in 1519 is depicted, followed by the construction of a Catholic church in Xilotepec almost ten years later (Ecker, 2001: 9 and Wright Carr, 2012: 54). As said before, two out of the 68 pages contain references to a Spanish almanac. Page 11 of the codex is introduced as a *reportorio* (“Repoltorio”) (see Figure 28). This reference is immediately followed by the words “Enero” and “Aquarios 31” to indicate (without an explicit explanation) that the month of January is associated with the Zodiac sign Aquarius and a length of 31 days. What follows in Otomí is translated as *aguador jilote perro que muerde*, however this sentence does not make much sense in the context of the calendar. The numbers 1 through 31 are listed from top to bottom and correlated to a day name of one of the 20 day signs of the Mesoamerican calendar system in Otomí.

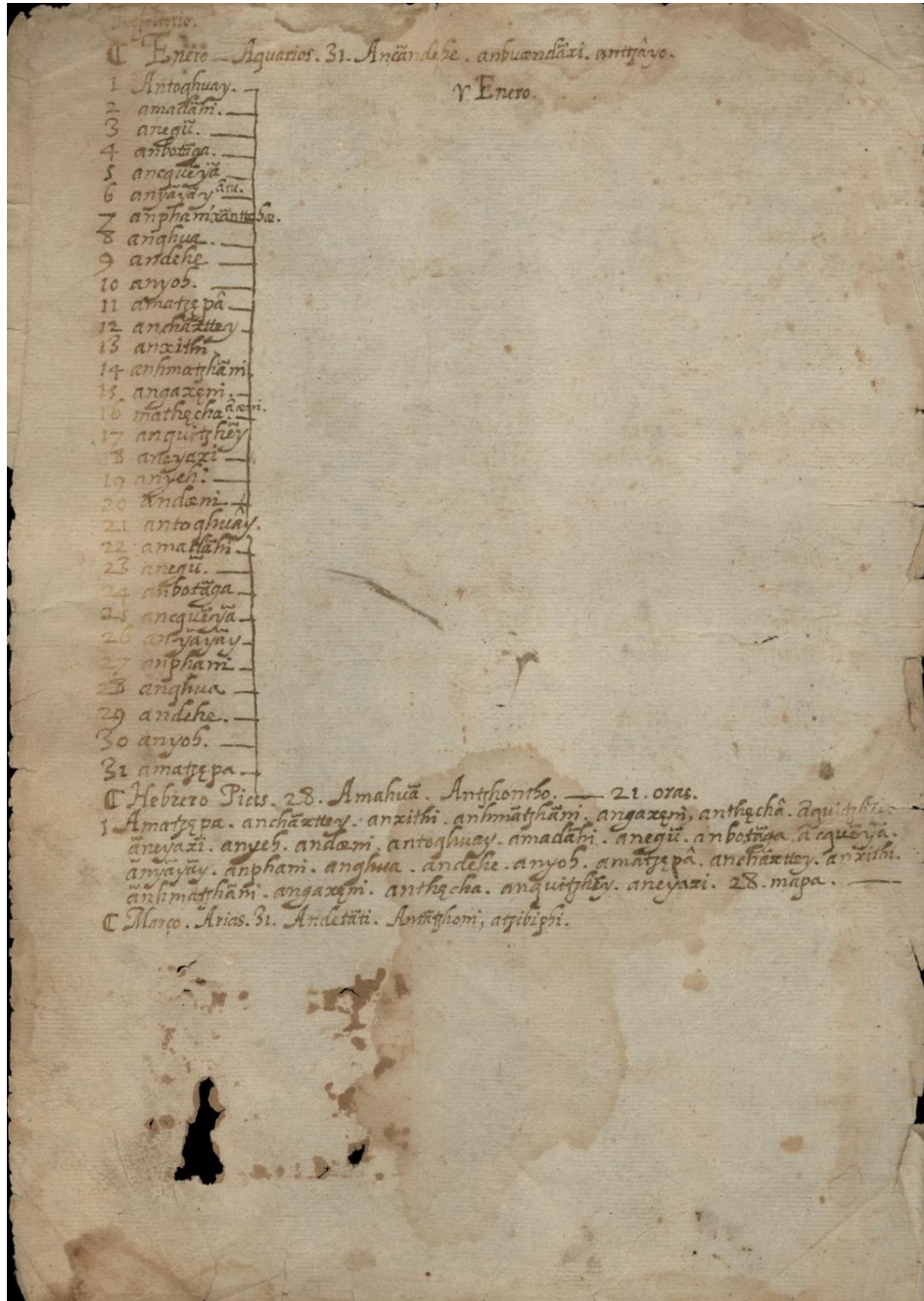


Figure 28. Page 11 from the Codex Huichapan with a reference to a reportorio (“Repoltorio”).

Image from the facsimile published by Óscar Reyes Retana (1992).

January 1st, in this case, is the day sign Flint and the 31st day is Monkey (Ecker, 2001). The table below presents the names of the 31 days of January according to Codex Huichapan in Otomí, Spanish/English and their corresponding sequence in the sequence of the 20 day signs.

Day	Day name in Otomí	Day name in Spanish ⁹³ [English]	Sequence in 20-day cycle
1	Antoqhuay	pedernal [Flint]	[1] ⁹⁴
2	Amadāhi	viento [Wind]	2
3	Anegū	casa [House]	3
4	Anbotāga	lagartija [Lizard]	4
5	ancquēyā	culebra [Serpiente]	5
6	anyāyā a[n] tu	calavera ⁹⁵ [Skull]	6
7	Anphanixānttöhö	venado [Deer]	7
8	Anqhua	conejo [Rabbit]	8
9	Andehe	agua [Water] ⁹⁶	9
10	Anyoh	perro [Dog]	10
11	Amatzūpā	mono [Monkey]	11
12	Anchaxttey	[brush of natural fibre]	12
13	Anxithi	caña [Reed]	13
14	Anhmatzhāni	ocelote [Jaguar]	14
15	Angaxūni	águila [Eagle]	15
16	mathücha a[n]öni	zopilote [Vulture]	16
17	anquitzhē	sanguijuela ⁹⁷	17
18	Aneyaxi	navaja de obsidiana [Obsidian Knife]	18
19	anyeh? [sic]	lluvia [Rain]	19
20	Andöni	flor [Flower]	20
21	Antoqhuây	chuchillo de piedra [Stone Knife]	[1]
22	Amadāhi	viento [Wind]	2
23	Anegū	casa [House]	3
24	Anbotāga	lagartija [Lizard]	4
25	ancquēyā	culebra [Serpent]	5
26	anyāyā a[n]tu	calavera [Skull]	6
27	Anphani	venado [Deer]	7
28	Anqhua	conejo [Rabbit]	8
29	Andehe	agua [Water]	9
30	Anyoh	perro [Dog]	10

⁹³ According to the translation by Ecker (2001: 38-41). The English translation is mine.

⁹⁴ In the Central Mexican calendar this is 'lagarto' or Alligator.

⁹⁵ In Otomí, this sign is termed literally after what it portrays: a skull (calavera). In most cases, however, this sign is termed 'death' (Muerte).

⁹⁶ This is in the Central American calendar Rain.

⁹⁷ This is Spanish for leech. In the Central American sequence, this would be Movement (Ecker, 1998: 40).

31	Amatzüpa	mono [Monkey]	11
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Figure 29. The names of the days for the month of January in Otomí, Spanish/English and their order in the sequence of the 20 day signs, from the reportorio in Otomí.

Thereafter follows the month of February (“Hebrero”). The scribe decided not to list the 28 days (or 29, if the codex considered a leap year) of the month in a table, but instead he wrote them down in a single paragraph. According to the scribe, the first day of February is *amatzüpe* or Monkey, the eleventh day sign in a sequence of twenty. As Monkey is also the final day of the month of January, it would seem reasonable that February would have started with *anchaxttey* (“brush of natural fiber”), or the twelfth day sign. According to Prem, it is unclear whether this is an error or if this belongs to a specific calendrical pattern (2008: 202). The month of March is incomplete and, moreover, the information presented does not seem to point to any standard day signs in Otomí; e.g. *Março. Arias. 31. Andetãti. Antãtzhoni. atzibiphi.* and translated as Março Aries. 31. borrego [?] el comer humo, fumar (Ecker, 2001: 41).

Page 12 is blank and page 13, as is explained in Otomí, shows a table that correlates the twelve months of the Western calendar, the Zodiac signs, and the names of “months” represented according to their Nahuatl and Otomí designations. The final column is reserved for two combinations of Roman numbers: xx and xx xxi *oras*. According to Ecker, the word *oras* is a mistake that should read *días*, although it is unclear how this would coincide with the numbers 20 and 41 as these clearly cannot be interpreted as the amount of days in a month. The left column of the table explains the Zodiac signs in Otomí. Some of these signs are easily translated; such as Pisces, Leo⁹⁸, Virgo, Libra, and Scorpio. Others, however, are translated according to the scribe’s interpretation: Taurus is given as the “great deer-bull,” Sagittarius as a hunter, a person, and also as the Nahuatl *tlacamaçatl* or “man-deer.” The author probably also spoke some Nahuatl considering the amount of Nahuatl present in the codex. Aries is a *topador* or someone who bumps into things and Gemini are two of the same children.

The table includes and starts off with elements from the Western tradition (Zodiac signs and the names of the twelve months). However, it seems that the purpose of the inclusion of information derived from a *reportorio* in an otherwise historical document, is to emphasize the existence of indigenous terminology. In addition, the scribe tries to correlate days and months of the Western calendar to the Mesoamerican calendar in Otomí and Nahuatl. By doing so, Prem (2008) is in parts right in arguing that there is artificiality in the construction of the correlation itself. It tries to create a beginning of a year at the first of January and at the first day sign of a Mesoamerican calendar (Antoquhuay in Otomí or Cipactli in Nahuatl). This, in itself, is artificial as not every 1st of January coincides with the first day sign of the Mesoamerican calendar. The actual presence of such a correlation, however, is a validation of indigenous time reckoning in the middle of the seventeenth century. This section, even though called a “reportorio,” has in fact little to do with the astrological, medicinal, and agricultural content of the traditional Spanish almanac. It appears as if the scribe only needed the amount of days in a month (named *planetas* on folio 13) from the Western calendar for purposes of correlating different calendar systems. The scribe furthermore copies names of Zodiac signs, but appears to have no interest in any form of astrological significance. In fact, if we read what the author himself writes prior to the correlation it becomes clear that he is commemorating Mesoamerican feasts throughout the solar year by establishing correlations with the Western calendar:

⁹⁸ Translated as *amamihni* or lion, so the Otomí language had already created a word for the animal which is not present in the continent.

“[He] aquí la memoria [de] la cuenta de las fiestas [de] la cuenta de años [de] los lejanos ancianos [=antepasados] veinte días aquí [en] mexicanos otomíes, mazahuas todos los pueblos aquí [en] nuestra casa tierra [que] se llama Nueva España, que se equipara [a] la cuenta [de] luna, de los españoles cada año asimismo la cuenta de fiestas [=el calendario] [de] los meses lejanos ancianos [antepasados]”
(translated from Otomí by Ecker, 2001: 42)

If we consider the document as a whole, therefore, we have a text that begins with the annals of the convent of San Matteo through a historical account in a number of years of the Western calendar. The author then (incompletely) correlates the Western calendar with the Mesoamerican calendar in two languages. The final part of the codex is a historical account of the community of Huichapan between the years 1403 and 1528. In contrast to the purely alphabetic text of the annals of the convent and years denoted according to the Gregorian calendar, this section is a combination of text and Central Mexican pictography. Each folio contains two of the four Mesoamerican year signs (House, Rabbit, Reed, and Flint) and their corresponding number in dots. The correlated year in the Gregorian calendar has been written in both Roman and Arabic numerals. Important historical events are depicted in pictorial codex style above the year signs.

In summary, the codex begins with a history that was initiated by Spanish and Catholic influence: the construction of the San Mateo convent by Priest Alonso Rengel. Thereafter, the author combines references of time of the indigenous calendar (day signs; feasts) and the Western one (months and their amount of days; Zodiac signs) in an effort to have them run side by side. Finally, the historical account turns to Mesoamerican history of the early fifteenth century through to the third decade of the sixteenth century. Being an alphabetic document in Otomí, it was meant to be read by an Otomí speaking (literate) audience. The presence of the codex style kept alive indigenous forms of writing, but its iconography also enabled a larger audience to read and commemorate Mesoamerican history.

The author of the Codex Huichapan was familiar with the genre of the *reportorio*. However, the author did not intend to explain the astrological, liturgical, medicinal, or agricultural content of the *reportorio*. Rather, he selected solely the names of the months and their amount of days. By doing so, he established a starting point (i.e. the first day of the year) in the Gregorian calendar. This starting point could then be related to an artificial beginning of the Mesoamerican calendar in Otomí. The inclusion of the Zodiac signs and the effort to translate their names into Otomí, appears to be relevant to the extent that each of these belong to one the months of the Western calendar. Their astrological influence, however, has been omitted from the codex.

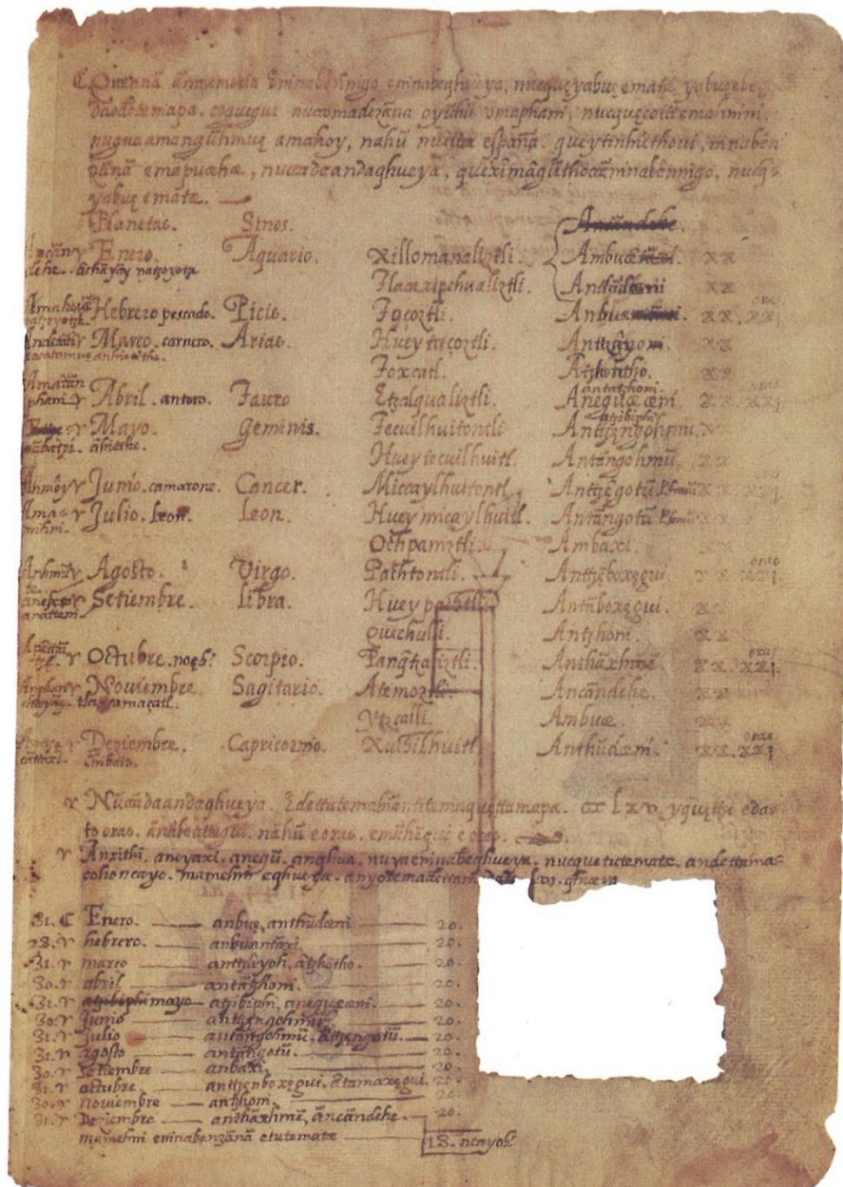


Figure 30. Page 13 from the Codex Huichapan. Image from the facsimile published by Óscar Reyes Retana (1992).

3.5 Corpus of Yucatec Maya translations: Books of Chilam Balam

The genre of the astrological almanac was not only present in the more central parts of Mexico, but also in the Yucatán Peninsula, a Maya speaking area. In this area, the famous surviving Books of Chilam Balam originated. This corpus of books was named after a Mayan prophet or *chilam*; his name Balam referred to the highly esteemed animal jaguar. These books, similar to Izcacqui, are a collection of texts that were translated in the sixteenth century and were then copied into the existing books well into the eighteenth and early nineteenth century (see Roys, 1967 [1933]; Craine & Reindorp, 1979; Edmonson, 1982, 1986 and the PhD thesis of Gunsenheimer, 2002). The corpus of books can be divided into a variety of themes:

- 1) History and prophecy: Books of Chilam Balam of Chumayel, Tizimin and Tusik

- 2) Astronomy, astrology, and medicine: Books of Chilam Balam of Kaua, Chan Kan⁹⁹, Nah, Tekax, and Ixil (Bricker & Miram, 2002: 1).

These themes also include religious texts, literary texts (Spanish novels for example), and explanations of the Mayan calendar in relation to the Christian calendar. It is, then, a compilation of both indigenous oral knowledge and hieroglyphic texts, as well as of European printed texts (Barrera Vásquez & Rendón, 1948: 9) – an encyclopedia of what was part of an intellectual valorization of two worlds that came together in a Mesoamerican context:

“[S]everal Books in the second group [that is, astronomy, astrology and medicine] consist of compilations of texts of both Old and New World origin and present fascinating possibilities for investigating the intellectual encounter between the two civilizations: which European texts were deemed worthy of inclusion and why, and how they were reconciled philosophically with texts of obvious New World origin. [...] [A] virtual treasure trove of information reflecting the intellectual concerns of the colonial Maya scribe.”

(Bricker & Miram, 2002: 1, 3)

Several studies on the specific Books of Chilam Balam of Kaua and Ixil have been published in the last decade. The Book of Chilam Balam of Kaua is translated and annotated in a publication by Victoria Bricker and Helga-Maria Miram in 2002. The Book of Ixil is translated and commented upon by Laura Caso Barrera and was published in 2011. An English translation of her book will be published by Brill in early 2019 in the Series *The Early Americas: History and Culture*, Volume 7.

3.5.1 Chilam Balam of Kaua

This book is the most extensive of all the Books of Chilam Balam in terms of number of folios (141) and encyclopedic content. It not only covers astrology, astronomy, and medicine, but also includes similar texts on history and prophecy that are present in some of the other Books (Bricker & Miram, 2002: 1-3). The work by Bricker & Miram is the first complete transcription and translation of the Kaua. Their work was preceded by several other studies between the second half of the nineteenth century and the early 1980s, however the latter were limited to thematic fragments of the text. The transcription by Bricker & Miram is based on photocopies of the (probably) complete original manuscript from the late nineteenth century by Teobert Maler. These were the final photos taken before the manuscript went missing from the Library in Mérida in the Yucatecan Peninsula where it was kept. Copies of the photocopies taken by Maler are located at the Ibero-Amerikanisches Institut Preußischer Kulturbesitz in Berlin, the University of Hamburg, and the Libraries at the Brigham Young University in Provo (Utah). Furthermore, a copy made by William E. Gates (1915) resides in the Tozzer Library of Harvard University.

3.5.1.1 Content and source texts

The Kaua is composed of two parts (called “Volumes” by Bricker & Miram) that certainly belong together: the first part of 87 folios is entitled “Tratado de la[s] 7 Planetas y otr[o] de medecinarum sygno de sangrar [sic]”; the second part of 55 folios is untitled. Bricker & Miram identified one very specific source text by comparing images in the Kaua with images in other manuscripts. The first image

⁹⁹ The name of Chan Kan is given to the book by the University of Pennsylvania, and Bricker & Miram also use this name. However, the name of the town in which it was found is Chan Cah, a name that Alfredo Barrera Vásquez corrected. The name of Chan Cah is used by the study from the Grupo *Dzibil Manuscrito de Chan Cah* (1982: v). I will use the name of Chan Cah in the subsequent paragraph on the manuscript.

compared was a geocentric, spherical model of the universe and the second was a drawing of a comet. Bricker & Miram argued that both of these images would have been copied from a *reportorio* by Rodrigo Zamorano, published in Sevilla in 1585 (*ibid.*: 8, 92, 248, 249). What is so specific about the spherical model of the universe is that it exceeds the nine heavens of Ptolemy and it also exceeds the tenth heaven added by Alfonso the Great, ruler of Castile and León in the thirteenth century. In this way, it is a perfect representation of the 11 heavens as theologians envisioned the cosmos in the relevant period (*ibid.*: 13). This conceptualization of cosmos is not represented in, for example, the 1554 edition by Sancho de Salaya, nor in the 1529 edition by de Li. This leads one to the conclusion that it most likely is a copy of a feature of the *reportorio* by Zamorano.

Both Zamorano's publications of 1585 and 1621 illustrate the cosmos as composed of 11 spheres. Other images in the *Kaua* – such as the constellations and planets – have been compared to other *reportorios* such as the edition by Salaya from 1542. Although it is possible that such *reportorios* provided a basis upon which the authors were able to interpret their iconography, it has not been proven that these *reportorios* served as source texts (*ibid.*: 8). As for dating the manuscript, Bricker & Miram pinpointed 1746 as the publication date of the latest source text consulted: a colonial grammar of Maya by Pedro Beltrán de Santa Rosa. Thus, Bricker & Miram argue that the manuscript was composed somewhere in the final two decades of the eighteenth century as it contains tables of calendar dates ranging from 1796 to 1826, and the year 1789 on the title page of the first part of the *Kaua* (2002: 11). *Kaua*, then, was not produced long after Izcatqui [1754].

3.5.1.2 Interpretation of Mayan tz'ib [scribe]

Bricker & Miram endorse the term “syncretism”, which they explain as “the integration (and consequent secondary elaboration) of selected aspects of two or more historically distinct traditions” (*ibid.*: 85, after Edmonson, 1960: 192). In order to explain where syncretism is present they identify the fragments where it is evident that the authors changed the European text into something more fitting to a Mayan cultural framework, similarly to what I have done for Izcatqui. There are four “cultural domains” in which syncretism is clearly present according to the two authors:

- 1) **Calendrics:** the Mayan calendar system is explained in Western calendar terms. One such example is how the *uinal* or a period of 20 *kin* (‘days’) is either divided into four times a five-day ‘week’ – named after newly coined ‘week bearers’ – or is divided into three seven-day weeks. A visual example is a calendar wheel after a European model, which tries to fit in two cycles of the Mayan calendar within a wind compass.
- 2) The identification of the four horsemen of the Apocalypse as rain gods – which remain as part of present-day religion in Yucatán Bricker & Miram (*ibid.*: 85; 88) – could have been preceded by the representations of the wind gods as angels in books such as the *Chilam Balam* of *Kaua*. In addition, the Mayan wind gods are also represented as Christian saints. Therefore, the wind compass – such as the one we find in the *Book of Kaua* – is used to link Christian angels and saints to the Mayan wind and rain gods (*ibid.*: 88).
- 3) **Astronomy:** since the number eleven held no great significance in Mayan culture, the number of heavens in the European model was increased by two more to exploit the importance of the number thirteen.
- 4) **Medicine:** medicinal plants from the Mayan area were implemented in treatments of illnesses that originated according to European beliefs (*ibid.*: 88).

The authors distinguish between syncretism of “form” and “meaning” in the Chilam Balam of Kaua according to the list above. The first form of syncretism was the adaptation of the Mayan calendar to the European model via the incorporated division of months and weeks. This process of syncretism required a change in the structure and meaning of the preexisting calendar. The equating of saints to Mayan rain and wind gods was less troublesome as the structures of both religions allowed for a substitution of the one into the other largely without changing its system or meaning. There are fewer examples of syncretism that clearly affected the structure or meaning in the medicinal texts. However, some aspects as syncretism are present, including the account of cures which depend in part on astrology as well as the description of herbal treatments. Bricker & Miram argue that, ultimately, the European structure prevailed, because the Mayan substitutions found were those related to the processes of curing with native plants. This was likely due to the great difference between European and Mayan ways of curing (*ibid.*: 88).

3.5.2 Chilam Balam of Ixil

It was not until 2011 that the first complete transcription and translation of the Book of Chilam Balam of Ixil appeared, edited by Laura Caso Barrera with a contribution by Mario M. Aliphat Fernández. Prior to Caso Barrera's publication, only fragments of the Ixil had been translated, the earliest by Juan Pío Pérez in the beginning of the nineteenth century. In addition, parts of the medical recipes that appear in the Chilam Balam of Ixil were published in 1976 by Ralph L. Roys in his work, *The Ethno-Botany of the Maya*. Instrumental to our understanding of the Books altogether, are the translations and historical and comparative research by Alfredo Barrera Vásquez in the mid-twentieth century (Caso Barrera, 2011: 12-13). Caso Barrera's work has brought together the missing pieces that were left from those earlier studies. As such, it is one in a range of invaluable contributions to the study of products of interaction and interpretation between Mayan (Mesoamerican) and European cultures. She hits the nail right on the head by arguing that:

“[...] [S]e puede afirmar que los libros de *Chilam Balam* son fuentes de gran riqueza para el estudio de la cultura y lengua mayas desde el Posclásico hasta el siglo XIX, pues su contenido fue variando al irse integrando nuevos conceptos y elementos culturales en las poblaciones mayas de Yucatán. Lo que se debe destacar es la oportunidad que brindan documentos como el *Chilam Balam de Ixil* para entender los conceptos, temas y textos de la cultura europea que los mayas consideraron interesantes y relevantes para retomarlos, adaptarlos y compararlos con su propio Sistema simbólico y cultural. Muchas veces se cree que los textos “más hispanizados”, como el *Ixil*, resultan menos interesantes, sin tomar en cuenta que son precisamente este tipo de fuentes las que nos permiten analizar y entender la aculturación desde el punto de vista indígena. [...] Los mayas no solo copiaron los textos europeos, sino que escogieron cuidadosamente pasajes de especial importancia que tradujeron utilizando palabras con alto significado cultural.”

(Caso Barrera, 2011: 11-12)

Much like Izcacqui, it is believed that the Ixil book has been composed in the eighteenth century and that it is a copy from an earlier version. On folio 21r, the year 1743 appears in a section that explains the Mayan calendar. This however, is not necessarily a reference to the year in which Ixil was made. The Biblical texts that pertain to the Ixil book are thought to derive from a *Biblia vulgate Latina* which was translated into Spanish by Father Felipe Scio de San Miguel in 1791. This, then, would be the latest possible date for the composition of the manuscript (*ibid.*: 16).

Ixil's content is a combination of religious narratives from the Old Testament; recipes to cure illnesses; the Mayan calendar explained through calendar wheels; an explanation of the eclipse;

drawings of the twelve Zodiacs signs¹⁰⁰ (including which parts of the body and humor each rules or effects, prognostications for those born under a given sign, and agricultural advice); a Saints calendar; an image of the eleven spheres with Earth as the center; a table relating the twelve months to the twelve Zodiac signs; an incomplete table of the twelve months of the year – January to September used for medicinal purposes¹⁰¹; religious narratives from the Old Testament¹⁰²; a table in which each day of the twelve months of the Gregorian calendar is related to the lunar cycle indicated by letters of the alphabet; a table that indicates which organ or body part is effected by one of the twelve Zodiac signs (the table substitutes a drawing of Zodiac Man); and, finally, an Aureus Numerus table (Caso Barrera, 2011).

The drawings in the Chilam Balam of Ixil leads to a rather easy search for the original sources used (either as primary or secondary source): the *reportorios* by Rodrigo Zamorano¹⁰³ (1585), Jerónimo de Chávez (1580), and Andrés de Li (the year of publication is not mentioned) (Caso Barrera, 2011: 16, 46). The image of a lunar eclipse on folio 22 is similar to a drawing from Zamorano’s edition of a *reportorio* from 1585. Bricker & Miram (2002) were able to provide many corresponding passages and images between the Chilam Balam of Kaua and Zamorano’s work. The eclipses of the Moon and Sun in Ixil are also very similar to Zamorano’s edition. The image of the solar eclipse of the Kaua, however, is different from both Ixil and Zamorano. Here we see the first four Heavens (Moon, Mercury, Venus, and Sun) with the Moon clearly in front of the Sun. The image of the solar eclipse in Ixil has one addition to the image from Zamorano and that is what appears to be a letter ‘V’, which might refer to the sphere of Venus.

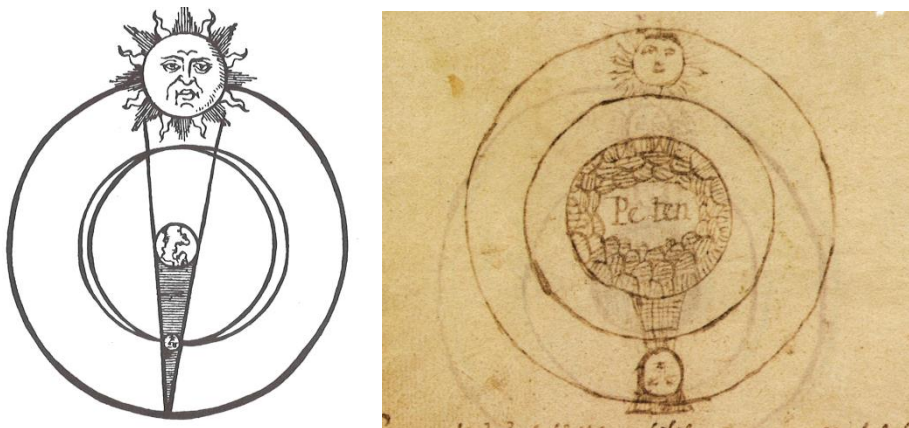


Figure 31. Lunar eclipse from Zamorano’s *reportorio* (1585:219) in comparison with lunar eclipse from Chilam Balam of Ixil (folio 22v). (from Caso Barrera 2011:160).

¹⁰⁰ Note how the *tz’ib* decided to start with the sign that correlates to the beginning of the calendar, thus Aquarius for January. Spanish *reportorios* depart not from the first month of the calendar but with the first sign: Aries for the month of March. We find the same restructuring of the text in Chilam Balam of Kaua and Chan Kah.

¹⁰¹ A doctor had to be aware of the ruling Zodiac sign for each day of the year to carry out the correct curing practices. In this case, the *tz’ib* related the days of the months and the Dominical Letter of the Gregorian and liturgical calendar to the twenty names of *kin* or day signs and a numeral coefficient ranging from 1 to 13 – each day is either defined as ‘good’ or ‘bad.’

¹⁰² Caso Barrera argues that the folios containing this narrative should have been placed after the religious narratives on previous folios. Together these narrate chapters 8, 22, 49 and 50 from Genesis (2011: note 1 on page 259 and note 576 on page 272).

¹⁰³ Zamorano had a well-established career as cosmographer and was the first to edit a *reportorio* after the Gregorian calendar reform in 1582 (Bricker & Miram, 2002: note 1398 on page 278 and Caso Barrera 2011: 16).

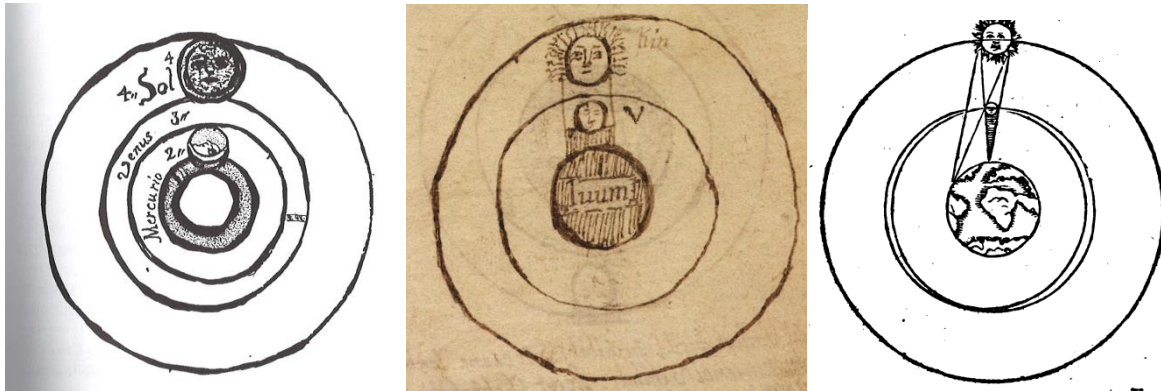


Figure 32. Solar eclipse from Chilam Balam of Kaua (folio 138) in comparison to eclipse from Chilam Balam of Ixil (folio 22r) . (from Caso Barrera, 2011: 162 and Zamorano, 1585: 221).

The Chilam Balam of Ixil and Kaua illustrate that the edition by Zamorano was familiar amongst indigenous scholars who read, translated, and incorporated the Spanish almanac into new texts in Yucatec Maya. Drawings of the Zodiac signs are very similar in style to the same images in Jerónimo de Chávez' almanac. Note how the *tz'ib* correlated each sign to a single month. The texts on the twelve Zodiac signs in Ixil are a mix of the aforementioned three *reportorios* as well as indigenous elements. They showcase how its composer mixed images and fragments of text of different sources. The images, for instance, are derived from Chávez or Zamorano, but the text is short like de Li's and aims to instruct the reader on a number of details. First of all, it provides information about the number of stars that make up each sign. Furthermore, it discloses the date of the month in which it rules and the length of the days and nights of that month. Although the Chilam Balam of Ixil does not include an image of Zodiac Man, it does provide this type of information in the form of a table on folio 44v and in the descriptive text of the Zodiac signs. It describes the effect on the four humors, as well as the characteristics of persons born under the sign, and, finally, agricultural advice is dispensed.

3.5.3 Chilam Balam of Chan Cah

Two studies have been published on the Chan Cah: one is a Spanish and the other an English transcription and translation. Marla Korlin Hires dedicated her PhD dissertation to the Chan Cah in 1981 (Tulane University), which was the first full English transcription and translation of the manuscript. Korlin Hires' dissertation also includes a brief comparison with several other Books of Chilam Balam, and was also written in English. The Spanish translation and transcription was made by the Grupo Dzibil under the direction of Héctor M. Calderón in 1982. This translation is preceded by a short 2,5 page commentary.

The Book of Chilam Balam of Chan Cah contains 128 folios and probably dates to somewhere between 1823 and 1845 (Calderón, 1982: vii). The date of Friday August 24, 1832, appears on folio 124. On this day, it is said, people from abroad (*extranjeros*) arrived in Hō or Mérida (Yucatán) (Calderón, 1982: vi). In addition, the scribes also refer to the year of 1513, the year in which *extranjeros* set foot on the Peninsula for the first time. It is noteworthy that they denoted the year 1513 as "*He aquí el año mil quinientos trece años [...]*," a Spanish way of counting the year in the Gregorian calendar (ibid.: vi). However, when referring to years in the nineteenth century, the scribes in this instance combine both the Spanish *Agosto 24. Viernes de 1832* with a calculation in multitudes of 20 that very much reflects Mesoamerican numerology: *Cuatro veces cuatrocientos, diez veintenas, una veintena y tres unidades es la cuenta del año*, or four times 400, ten times a *veintena* (20), one *veintena* (20), and

three *unidades* = 1823 (and not 1832). Moreover, both Chan Cah's structure and parts of its content shows similarities with Tekax and Nah (Calderón, 1982: v).

Two of the sources of the Books of Chilam Balam of Chan Cah – and also of Mani and Kaua and Codex Pérez – are *el Cuento del Mercader* and *La Doncella Teodora* (see more on this story below as it refers to the importance of knowledge from a *reportorio*). The incorporation of the story of Teodora is a good marker of the period in which it was produced. The legend of Teodora apparently came from an astrological almanac that was designed for the year of 1834 and published in 1833. More so, it seems likely that there was a single copy of an almanac that circulated between certain groups of *h-menoob* (Mayan highly esteemed teachers/ priests) in the year 1833; this single copy was translated in different ways amongst them. (*ibid.*: vii). See Appendix F for an overview of the content of the complete Chilam Balam of Chan Cah. Here, I am mostly interested to the reference of the genre of the *reportorio* through the account of *La Doncella Teodora*. This account not only refers to the content of the *reportorio*, but to the epistemology of the genre itself.

3.5.3.1 History of Doncella Teodora: a story about knowledge

From the eleventh century onwards, Western Europe's development of the sciences and literature was highly influenced by contact with the Arabic world (Rivera & Rogers, 2000: vi-vii). Knowledge brought by scholars and texts entered via Southern Europe. Under the influence of King Alfonso X – known as *el Sabio* for his active propagation of Arabic texts translated in vernacular language – the story of the slave girl Tawaddud (renamed Teodora in Spanish) entered Europe as well. Her narrative originated in the Orient in the ninth or tenth century and was incorporated into the famous collection of tales Arabic Nights (Thousand and One Nights) in the fifteenth century (Rivera, 1998: 416). It was first translated into Castilian in the second half of the thirteenth century and was first printed in Toledo around 1500 at the printing house of Pedro Hagenbach (*ibid.*: 416-417).

The story of the slave girl Tawaddud gives an account of a young woman who is about to be sold by a merchant to King Almanzor. In Chan Cah, this king is named *ahau* – ruler in Yucatec Maya – *Almasor*¹⁰⁴ or Al-Mansur. As the result of his demand of a price so high as ten thousand golden pieces, the king asks the merchant if he is “out of his mind” and if he is “exaggerating the maiden's value” (Bricker & Miram, 2002: 224). The following events in the story reveal to the reader what is considered to be relevant to the maiden's “value.” For example, the maiden is judged on what can be interpreted as her wisdom, because the King is concerned that she “maybe [...] does not know anything” (*ibid*). The merchant is quick to respond that she knows many of the things that knowledgeable individuals know (*los sabios*); she knows, that is, what is “in the spirit” (*están en el espíritu*). In fact, the merchant claims that there is no one quite like her amongst the male *sabios* as she has been taught all. The merchant continues to explain that she is able to write, she “knows of the letters,” and “might possibly also know of all things on earth.” The King asks Teodora if the miracle of her knowledge is the greatest in the world, upon which she replies that the principle of knowledge lies in the first seven things that people are taught. These are matters of the earth and sky; herbs; animals and birds – all created by God. What's more, Teodora exhibits her knowledge of how to play the flute and how to sing in organum.¹⁰⁵

In the second Chapter of the story of Doncella Teodora, the King calls for a conference of all *sabios* in which he selects the three best to interrogate Teodora to estimate if the ten thousand golden pieces are worth spending on her or not. The three wise men that are about to question the maiden are the ones that know of the Commandments of God; the second is very informed on writing, medicine,

¹⁰⁴ In the Chilam Balam of Kaua, his name is spelled *almanzor* (folio 99, page 222 in Bricker & Miram, 2002)

¹⁰⁵ Bricker & Miram (2002 : 225, note 881) refer to the work by McKechnie (1974: 1261) who defines singing in ‘organum’ as “an early type of two-part harmony in which the voices are separated by an interval of a fourth or fifth.”

how the stars travel, and how people are born on earth; the final and third one knows all there is to know about the ways of the Sun and Moon, the movements of the spheres, and of the seven things (*cosas*) too. The selection of the three wise men is followed by Doncella Teodora being subjected to a series of questions which she was able to either outsmart or to respond so complete that the second *sabio* even states that the maiden is much brighter than he is, that she knows of all things on earth as well as of the sky.

After the interrogation of the three wise men who were outsmarted by Teodora, the wisest of all came to the fore: Abraham the Prophet.¹⁰⁶ A debate amongst the two of them ensues in the form of riddles proposed to Teodora by Abraham. The structure of the transcribed conversation between Abraham and Teodora is thus in a Q&A form and includes a number of riddles. From the Middle Ages through the sixteenth century, Rivera (1998) explains, the questionnaire (*quaestiones*) was a popular didactic technique to teach a variety of disciplines in a playful manner while at the same time “[offering] concrete advice concerning human knowledge and experience by means of a series of concise exchanges” (*ibid.*: 416). As for the Spanish edition of the story of Doncella, Rivera states that the reader is being instructed on “physical sciences, folk traditions, medicine, and social practices” (*ibid.*: 416-7). This is no difference in the Mayan text and again I would argue that this story was included for other reasons than just an interest and curiosity towards foreign literary traditions. By adding the account of a young slave whose only way out of being sold and helping her master was to be the most knowledgeable of all, the text insinuates that virtue was in one’s intelligence. This then, was not necessarily conditional upon one’s social status (recall that the girl was a mere slave at the time). According to Rivera, the format of the story – and, I think, the underlying reference to virtue despite social class – only further intensifies the excitement a reader would have felt in finding out the outcome and to find out her triumph over the King’s trial (1998: 417). It is the underdog position that everyone is rooting for and, by creating sympathy for Teodora, the reader automatically connects to the urge to want to know more than the masters who are questioning her and to the idea that such a thing was even possible.

What is present very clearly in the Chumayel is the so-called language of Zuyua or *Suyuaa than* in Maya¹⁰⁷. Zuyua referred to the city of Tula in Central Mexico, “to draw the mantle of the Toltecs over the ritual language of the Mayan examination system” (Edmonson, 1986: 168, note 3501). Whoever is posed several riddles that each, if understood correctly, reveals a secret word or action that the royal child has to carry out. Brotherston (1982: 135) and Bricker & Miram (2002: 232, note 936) recognize phonetic resemblances between the Mayan translation for doncella or maid *suhuy* to the word in the language of *suyua*. *Suhuy than* “the language of the wise maiden” could be related to *suyua than* “the language of Zuyua” other than just a reference to “virgin, pure, maiden” (Bricker & Miram, 2002: 232, note 936). The use of riddles posed by Abraham in the story of Teodora could very well have reminded the Mayan authors of the Books of Chilam Balam of the language of Zuyua. As rightly pointed out by Brotherston, however, the difference between the two is that the riddles posed to Teodora by Abraham have a hierarchical character. “What is stronger than steel?”, “What is sweeter than honey?”, “What is the swiftest of all things?” (Brotherston, 1982: 137). This hierarchy is not only present in the questions themselves, but also in the reasons as to why they are asked in the first place. It is Abraham’s aim to prove that Teodora’s intelligence can never reach the level of his – but, of course, Abraham fails. Still, the riddles in the Mayan texts are designed in such a way as to identify a “shared consciousness” in the knowledge of the interviewee (*ibid.*: 137).

¹⁰⁶ This is Chapter Four, however, it is not until after this segment of the story that the manuscript says *C.P.4 El cuarto título quiere hablar del final* (Calderón, 1982: 87). In the fourth title, the interrogation was finished (Bricker & Miram, 2002: 235)

¹⁰⁷ Maarten Jansen and Gabina Aurora Pérez Jiménez discuss this type of esoteric languages (characterised by metaphors and riddles) and compare the language of Zuyua with the Mixtlan lordly language (*Iya*) (2009: 104-120).

By incorporating these riddles or having selected a text that included them, the authors of the three Books of Chilam Balam were aiming to mirror – and hence keep alive – a tradition of the Zuyua language (Brotherston, 1982: 139). According to Brotherston, the inclusion of the story of Teodora meant more than is straightforwardly apparent when one first encounters the story, because:

“The Maya translators of her [Teodora] story neglected the mere circumstances of her narrative in favor of intellectual exchange; and by this they meant not just the supplying of facts that are correct according to the scientific orthodoxies of the day, or of answers that are right in terms of pre-defined authority. Rather it involved the process of thought itself, the capacity to hear a question in more than one way.”
(Brotherston, 1982: 139)

Furthermore, in the story, Teodora was also able to reply to Abraham in such a way that he was no longer able to continue the debate with Teodora. Therefore, he took off his clothes until he was wearing nothing more than his white shorts. (Calderón, 1982: 85). He asked for mercy from the maiden Teodora, that she would not take away his shorts and that he should give the money to her.¹⁰⁸ Teodora in turn, plead to the King that she should remain with her master (Calderón 1982: 86-7).

In the pages of the questionnaire, one of the wise men asks her kindly to answer any of the questions that they are about to propose to her¹⁰⁹. Teodora is asked who is above all skies, created God, and has all the characteristics of January up until December. Doncella Teodora knows everything and very aptly characterizes the ruling Zodiac signs and planets, and the characteristics of someone being born under them; additionally, she lists the advice on medicinal treatments related to the signs, as well as agricultural practices (all according to a *reportorio*). This is how the story of Teodora ends in the Chilam Balam of Chan Cah, after which the text changes into a medicinal treatise (Bricker & Miram, 2002: 229-235).

Why does this manuscript – as well as the Chilam Balam of Kaua, Mani, and the Codex Pérez – include the story of Doncella Teodora? This story is not part of any *reportorio* and its inclusion was thus decided upon very deliberately by the authors of the aforementioned Books of Chilam Balam and codex. The merchant is asked to showcase the value of the maiden and, as we have seen, this value lies solely in the repertoire of her mind. She is only worth those ten thousand golden pieces if her brightness equals those of the wise men that are selected to interrogate her. By adding the story these manuscripts not only include the authorities of “the King” and “the Wise Men,” but also have these authorities refer to which type of knowledge was seen as highest in a certain kind of hierarchy of knowledge.

3.5.3.2 Reportorio de los tiempos as cited by Teodora

The first publisher of the printed Spanish book known as *Historia de la donzella Teodor* turned the medieval manuscript into something that would fit the demands of the reading market in the early sixteenth century. Hagenbach not only changed its size and font to have it conform to other books that were printed for a non-specialist audience, but also transformed its content to synchronize it to scientific

¹⁰⁸ In the Spanish translation of the Chan Cah the translators refer to 8,000 golden pieces (1982: 86) to be paid for the maiden, the English translation by Bricker & Miram refers to 10,000 pieces (2002: 235).

¹⁰⁹ There seem to be some differences between the Mayan texts of the Chan Cah and the Kaua. The latter, according to the transcription in Bricker & Miram, states in Maya (2002: 239): *be caina mac u lepl av ol* (Let no one make you angry!) *y oklal uayanon t u tan ahaue* (Because we are here in the presence of the king). The Mayan transcription and the Spanish translation from the Grupo Dzibil (1982: 87): *cayna maac u lepel a uol yoklal uayon tan ta tan, Ha eubal a nah maix ca c* (ojalá nadie te cause enojo sobre lo que vamos a hablar. Será necesario averiguar [...]) In English that would be: let’s hope no one makes you angry for what we are about to talk. It will be necessary to find out [...]. So here there is no reference to any king.

writing popular at the time (Rivera, 1998: 419). Hagenbach used fragments from an edition of the *reportorio* by de Li, which were probably available given his prior relationship with the author: it was his printing house that printed one of de Li's editions of the *reportorio* in 1510. Rivera illustrates how identical the texts from the Spanish *Historia de la donzella Teodor* and de Li's *reportorio* are by posing them side by side. Other than some orthographical differences, the fragments are perfect copies (*ibid.*: 421).

From the late medieval period onwards, astrology and medicine were no longer an elite's prerogative, but trickled down to a wider audience in the form of almanacs and manuals. Hagenbach's selection of this type of information was directed towards the aim of meeting the need for readings that could be used in everyday life by a wider audience. Hagenbach perfectly played into this trend by including those texts from de Li that dealt with hygienic and agricultural advice throughout the twelve months (*ibid.*: 422). He did so by weaving it into the *quaestio* didactic formula, so it was a perfect combination between what the public wanted and a method by which the incorporation of scientific discourse of the time would have been transmitted to the audience in an easy to grasp format.

The Mayan texts include these fragments from de Li, but what they do not include are texts concerning human sexuality that are mentioned in the article by Rivera (1998: 423). If these texts were included in the Spanish source text for the three Books of Chilam Balam, they were omitted by their authors. Rivera (1998) lists two fragments side by side: one from the Spanish *Historia de la donzella Teodor* and the other from the 1495 Zaragoza edition by de Li. I will copy it below to show how similar they are before comparing them to the Mayan texts:

En el mes de ENERO, siendo vieja la luna, deues alimpiar los arboles que perden la foja, e e s tiempo despuesto para trasplantar, enxerir, cauar las viñas, los rosales e los gezmines, e raer e entrecavar el alfalfa, e boluer los barbechos e plantar qualquier generacion de legumes. Deues vsar en este mes los baños e sangrias, e los manjares e potages claros e calientes de su natura, e no deues suffrir que se leuante el estomago de la mesa con sed.

Historia de la donzella Teodor.

Toledo: Hagenbach

1500-1503, folio 5r

Enaqueste mes siendo vieja la luna deues alimpiar los arboles que pierden la foja. y es tiempo dispuesto para trasplantar e enxerir para cauar las viñas los rosales e los gezmines: e para raer e entrecavar el alfalfa: e bouer los barbechos: e para plantar qualquiere generacion de legumes. Deues vsar en aqueste mes los baños y las sangrias e los majares e potajes claros: e calientes de su natura. e no deues suffrir que se leuante el estomago dela mesa con sed.

Reportorio de los tiempos.

Zaragoza: Paulus Hurus, 1495, sig. D1v

(From Rivera, 1998: 421)

The Chilam Balam Books and the story of Doncella Teodora refer to other specific information from a *reportorio* that I will list below:

- 1) Teodora is questioned by the second *sabio* who asked her what the meaning is of the appearance of the star [stars] of Sagittarius in the month of April, accompanied by Jupiter. She replies: "whoever is born in this period, will be restless [troubles, anxious] and will not be respected. I [also] say its medicine [treatment], if there is also pain in the leg, it is very dangerous to let blood from it, and you should not bathe either. In the muscular part of the foot appears a star, Jupiter is its name" (page 80 Chilam Balam of Chan Cah: translation mine from Spanish translation Grupo Dzibil).

- 2) Spherical division of the cosmos: on page 88 of the Chan Cah, Teodora is asked by a *sabio* if she knows who rises above all the heavens, who gave birth to our God. Teodora replies that God has created all in seven groups. She recounts the Sun, Moon, Saturn, Jupiter, Mars, Venus, and Mercury; the stars that do not move; the Zodiac signs (the nine spheres); and God in the outer sphere, who created and oversees all.
- 3) On pages 89, one of the *sabios* asks Teodora during which months the Zodiacs rule and what their characteristics are.¹¹⁰ In the following pages up to 96, Teodora recollects the twelve months; their ruling Zodiac signs; their associated planets and days of the week; their associated personalities (and on a few occasions physical characteristics) of those born under that particular Zodiac; which bodily malfunctions are prone to appear during these months; and whether or not particular medical treatments have beneficial or negative effects during these months.

Below I compare what Teodora says about the month of January to the *reportorio* by Andrés de Li [Zaragoza 1495]:

“In this month of January,
 It is when Aquarius rules
 With one great star,
 With Saturn,
 And Saturday.
 Whoever will be born during this sign,
 He will be small;
 And his body must be of medium size.
 He is very melancholy also.
 And he may be crazy about women.
 And I am speaking about medicine also.
 And a strong wind should not distend the pit of the stomach;
 Nor should he suffer from thirst at the table
 When coming from a meal either.”
 (from Bricker & Miram, 2002: 242)

Andrés de Li’s summary on the twelve Zodiacs signs informs us on the following about Aquarius on f. 122r (DelBrugge, 1999: 68):

“Aqueste signo llamado Aquarius es assignado al planeta Saturno por detras,
 porque el sol entra en aqueste signo a .xj. de enero & quando entra el sol enel es
 el dia de .ix. horas & media. Y dende que entra en aqueste signo fasta que sale
 creçe el dia vna hora. Es de natura de ayre, & su qualidad es caliente & humida. E
 el que nasciere en aqueste signo sera hombre pequeño, triste de condicion [&]
 amara bien las mugeres,”

¹¹⁰ When comparing what actually is being asked of Teodora by the *sabio*, the translations of the Books of Chilam Balam of Chan Cah and Kaua are different. The Mayam text is, apart from small orthographic differences, the same: *bax ti uil uil licil y ahualilob xane bla tux citan lic y ahualilob* (Bricker & Miram, 2002: 240). The Spanish translation of the Chan Cah reads “[...] cuál es la causa de la Luna? Cómo rigen también, y cuándo empiezan a regir?” (1982: 89). Bricker and Miram (2002: 240) translated it as “In which months may they [Zodiac signs] rule also? What characteristics do they have when they rule?” Consultation with native speaker of Yucatán Maya, Dr. Manuel May Castillo, has lead me to select the English translation.

The consultation that follows in the Chilam Balam is, in parts, taken from the text that in a *reportorio* accompanies the lists of Saint days for each month of the Julian/Gregorian calendar as I have copied it from another *reportorio* on page 86 (from another *reportorio*, but the Zaragoza 1495 reads the same). One similarity to what Doncella Teodora states is the phrase:

“[...] no deues sufrir que se leuante el estomago dela mesa con sed.”

Let's compare the month of June (Bricker & Miram, 2002: 244):

“This is when what is called Cancer rules,
In this sign.
There appears one star:
It is the Moon;
And Monday is its name.
Whoever will be born then,
He is handsome.
He has lust in his body.
And I say also
That no one will have sharp pains in his chest.
And whatever is in his heart;
Whatever is there in his liver,
It is favorable for purging.
He is very lazy too.”

Andrés de Li, [Zaragoza 1495, f.119r, DelBrugge, 1999: 65]

“Aqueste signo llamado Cancer es assignado ala luna. E entra el sol comunmente en aqueste signo a doze de junio, & quando entra elel primer grado son los dias de .xv. horas. & luego comiençan a menguar & mengua el día dende que entra el sol en aqueste signo fasta que sale media hora. Es de natura de agua, & su qualidad es fria & humeda. E el que nasciere en aqueste signo sera hombre hermoso de cuerpo valiente & muy esforçado.”

The month of September (Bricker & Miram, 2002: 245-246):

“In this month of September,
It is assigned to when Libra rules.
And it is associated with its rule,
Whose name is Venus.
It is a major star.
Whoever will be born then,
He is very honest.
He is very industrious
And diligent.
He is prudent.
“When he is born,
He has many friends also.
And I say that here in this month,

Much is favorable.
It is not dangerous for bleeding.
However, great is the pain in a man's kidney
And his buttocks.
It is favorable for purging.
And this is the time for harvesting grapes.”

De Li (Zaragoza 1495 f. 131r, DelBrugge, 1999: 78):

“En aqueste mes se acostumbran de venimiar las viñas & deues coger las huwas
que quieres para alçar quando la luna es vieja & en la hora mas caliente del dia.
En aqueste mes el sembrar los panes es maravilloso. La leche es muy prouechosa.
Puedes te sangrar sin peligro. Mas las dolencias delos riñones & delas nalgas son
muy dañosas.”

Two conclusions can be drawn from the comparisons of the fragments above: first, that the text in the story of Doncella Teodora does not copy complete fragments from a *reportorio* by de Li; and, secondly, that the author has selected information from elsewhere that would have mattered most and reconstructed it into the knowledge that is Teodora's. For example, whether or not a month – or, better said, a Zodiac sign – was beneficial or negative for the practices of bloodletting and purging, was taken from a table that accompanies an image of Zodiac Man. This table lists the twelve Zodiac signs (each twice or three times) followed by either “good”, “bad” or “indifferent” for purging and bloodletting.

The story of Doncella Teodora is one that has been appropriated and, in terms of Peter Burke's cultural translation, decontextualized and recontextualized. Alfonso X's objective meant that Arabic texts translated into Latin and Castilian were transformed in such a way that they confirmed to Christianity rather than to Islam. The earliest translation in Castilian thus omitted content aligned with Islamic religious, medicinal, and cultural traditions (Rivera & Rogers, 2000: x). According to Rivera and Rogers, the longevity of the story of Doncella Teodora was partly a result of its didactic characteristics. The *tz'ib* of the Chilam Balam texts worked in a period and in an intellectual sphere where there was a great interest in literary genres. It seems reasonable that the scribe or scribes of the Chilam Balam texts incorporated the story of Doncella Teodora to deliberately use the didactics of a Q&A, a tactic that would have been appreciated by Mayan speaking readers, to emphasize what was considered knowledge on an intellectual level. This knowledge was what had been united in a *reportorio*: astronomy and astrology.

3.6 Concluding remarks

My initial aim of this chapter was to analyze the differences between the manuscripts that incorporated the genre of the *reportorio* in Central and South Mexico and to try to establish, even if only in a preliminary way, possible scenarios for why they differed. My claim is that the Mayan texts include more references to calendrical and cosmographic indigenous worldview and medicinal and agricultural products. Furthermore, I was searching for evidence that would support the hypothesis that the active adaptation of *reportorios* to a Mayan cultural horizon was part of a stronger resistance to Spanish cultural and religious hegemony in the Yucatec peninsula than in Central Mexico. However, having had the time to let this idea linger, it seems more fruitful for the time being to find the commonality of texts within the small corpus of *reportorios* in indigenous languages. What I can conclude from having made an overview of all sources in indigenous languages, therefore, is that all include – in one way or another

– information from a Spanish almanac; and, thus, that none of them can be characterized as a *reportorio* proper.

The short *reportorio* as a handwritten appendix to a printed Doctrina Cristiana from 1553 is written alongside a *huehuetlatolli* or ritual speech for women who died during childbirth. Seemingly, these texts and the Doctrina Cristiana do not have much in common, especially considering the fact that the handwritten texts were a somewhat later addition to the printed text. There remains, then, the question why the *reportorio* was first translated and the *huehuetlatolli* first transcribed before being added to an already printed text. Pedro de Gante's work was used for missionaries teaching a certain group of indigenous Nahua peoples the pillars of Christian religion. The Doctrina Cristiana would have been read, narrated, and discussed in a context in which Spanish and Nahua speakers would have come together. This mixed readership is also present for the Codex Mexicanus, here we even speak of a hybrid document containing both alphabetic writing and indigenous pictographic writing. The *tlacuiloque* of Codex Mexicanus tried to unify indigenous and European calendar systems. The codex is a tangible reminder of how one version of indigenous history and the European worldview in a new Mesoamerican world were casted and captured at a single moment. Fonds Mexicain 381 illustrates how a translated *reportorio*, as said in the text itself, was taken by someone to be consulted. Therefore, we know that the *reportorios* were not just read and translated into local languages as pure documentation of literary genres from abroad. Alongside the *tlacuilo* of Fonds Mexicain 381, the *tlacuilo* of the *reportorio* of the Doctrina Cristiana altered the text where it would not make sense to a Mesoamerican reader. Codex Huichapan, although not abundant in its references to a Spanish almanac, broadens the range of indigenous languages in which the genre of the *reportorio* was known. This seems to suggest that the current corpus that we know of today was much larger at one point in time. The three books of Chilam Balam of Kaua, Ixil, and Chan Kah contain so much information derived from *reportorios* that they must be considered a focus for future research. It is not difficult for any of the above-mentioned texts to imagine a group of intellectual scribes from both a Spanish and indigenous descent discussing, interpreting, and translating texts and oral knowledge traditional to two parts of the world. These texts are examples of genuine human curiosity and interest in other individuals and other worldviews, while further demonstrating that people were searching for inspiration and attempting to construct a groundwork based upon what they had in common. This communality is what binds us, instead of dividing us.

Chapter Four - A Religious Prologue: The Holy Bull of the Holy Crusade

[f.1r]

Izcatqui

*yca quiztica ymtetlaocoliliztzin*¹¹¹

*Samto*¹¹² *padre in itoca*

bullā De la Sa[n]cta cruzada

y/ne maquililo yndias tlalli

*ypa[n] nemi yn motene*¹¹³*hua/*

tierra firme Del mar oceano [sic]

*ynic quimlote/maquilia Sancto p[adr]e*¹¹⁴

miec tlamantli

cenc/a// huei teicnililiztli

teoyotica tetlaocoliliztli=

Here it is

as it emerges with its mercy

by the Holy Father named

the Bull of the Holy Crusade

as it is given to the land of the Indies

those who live in the so-called

mainland of the ocean sea

thus he, the Holy Father, gives them

many things

a very great mercy

a divine mercy

Through these words, *Izcatqui* is introduced to its readers. This chapter will explain the reference in the first lines of the manuscript to the Holy Father and the Bull of the Holy Crusade. Accordingly, I will discuss the religious character of the first 10 folios of *Izcatqui*, before the text itself enters the *reportorio* genre. Moreover, I will place these first 10 pages within a larger context of religiosity in early colonial Mexico, a period in which many Christian texts were produced for speakers of indigenous languages. These texts have been the subject of many studies,¹¹⁵ however, there are fewer references to studies of Bulls of the Holy Crusade in indigenous languages. Therefore, the goal of this chapter is to provide a detailed examination of the pages of *Izcatqui* that touches upon the theme of the Bull of the Holy Crusade in particular. More specifically, then, the chapter aims to answer the following questions: what is the content of the text in Nahuatl? How does the Nahuatl text relate to other similar texts. And why has it been incorporated into the manuscript? This chapter contains a large number of transcriptions and translations. While they are subject to my interpretation, I believe that the inclusion of these translations in the main text itself, rather than in appendices, illustrates the character of the religious folios of *Izcatqui* in a more direct way than any description could.

4.1 Incorporation of the Americas into the Christian realm

Columbus' 1492 landfall on previously unknown islands in the Atlantic Ocean was a crucial event that directed future courses of history/histories, on either side of the Atlantic. This "discovery" gave rise to

¹¹¹ Written in a larger font than the rest of the text.

¹¹² It should read 'Sancto' [Saint].

¹¹³ 'e' written in superscript.

¹¹⁴ 'e' written in superscript.

¹¹⁵ For examples of both Nahuatl and Yucatec Mayan texts see the work by Mark Christensen (2013); for examples of Yucatec Maya texts see William Hanks (2010) and Otto Zwartjes, Klaus Zimmerman, & Martina Schrader-Kniffki (eds.) (2014).

a series of expeditions aimed at colonial expansion, as well as to opportunities for trade and the establishment of a now much larger Christian realm. Columbus' four expeditions led him and his men to several Caribbean islands, from the Bahamas and Hispaniola, to an island off the coast of Honduras, and, eventually, all the way down to Panama. The first planned encounter with mainland Yucatec Peninsula was not until 1517, during an expedition led by Francisco Hernández de Córdoba.¹¹⁶ With this encounter, the Spaniards had finally found what they were expecting: grandeur in the form of architecture, lifestyle and precious materials such as gold. This initiated other expeditions, first by Juan de Grijalva in 1518 and a year later by Hernán Cortés – the second of whom undertook a quest to find the great Aztec capital of Tenochtitlan in Central Mexico which so (in)famously came to be known as the “Conquest of Mexico”.¹¹⁷

Cortés and his men landed on the coast of the Mexican Gulf at Ulúa on the 21st of April 1519, Holy Thursday. Being devout Christians, they celebrated mass the following day – Good Friday – and erected their wooden cross. The colonizers had the goal of converting the indigenous population to Christianity, but they feared that without an organized structure and plan it was heading for failure (Ricard, 1966: 17-21). Cortés strongly urged the contemporaneous Spanish King, Charles V, to send over – in addition to the first Twelve Franciscan friars who arrived in 1524 – more Franciscan and Dominican friars to officially carry out Christian rituals such as ordination and confirmation (*ibid.*: 21).

Following from the passage quoted at the beginning of this chapter, Izcacqui continues as follows, considering the damage of the right margin:

[f.1r]

*In ixquich ica peuh intzintic
 yn c[e]m[ica]c yn ye//huatl toyaouh
 yn tlacatecoltl in diablo
 y/n ipa[m]pa ynexicoliz
 yneyolcocoliz/...¹¹⁸/ pa quitemo
 tinemi yn quenin huel
 q/.../[t]/e/ltiz yn t[lac]p[a]c
 tlaca ynic amo quil/...//huizque
 yn ilhuicac necuiltonolli
 yno./.../ce[n]ca huili t[o]t[ecuiy]o¹¹⁹ dios
 ytetlayecolticahuan /...//
 n o[m]pa yllhuicatlitlic
 yn o[m]pa hualhuet/...// tlacatecoltl
 yn ipa[m]pa ynepoaliz/...//
 yn yehuatzin. t[o]t[ecuiy]o¹²⁰ Jesuxpō
 yn ipa[n]/yn ce[n]ca tlapanahuia
 ytetlaçotla/...//
 nicoquimotlaçotili yn Sancta ygle/sia//
 mocaquililitehuac*

at the beginning of all
 eternally our enemy is he,
 the man-owl (devil), diablo
 because of his envy,
 its trouble [...] he descends it
 how [...] we live well
 [...] on earth,
 that is to say to not [...]
 in heaven, wealth is prepared
 by our Lord, dios
 providing for himself
 in the black heaven there
 the old devil
 because of its arrogance/vanity [...]
 he, our Lord, Jesus Christ
 it surpasses much
 his love for all [...]
 the Holy Church valued him highly
 he left upon dying

¹¹⁶ A ship returning from Panama shipwrecked near the coast of Yucatán in 1511 and some, including Jerónimo de Aguilar and Gonzalo Guerrero, reached the shore of the Peninsula. There they lived among a Maya population and learned to speak Yucatec Maya. In 1519, Hernán Cortés encountered both men; de Aguilar functioned as a translator for Cortés whereas Guerrero, having adjusted himself to a local lifestyle and married to a Maya woman, fought against the Spanish.

¹¹⁷ See Matthew Restall's, *Seven Myths of the Spanish Conquest* (2003), on the deconstruction of a development of (hi)stories on the Spanish Conquest.

¹¹⁸ The right margin of the page is damaged, from here on to the lower section of the page.

¹¹⁹ ‘o’ in superscript.

¹²⁰ ‘o’ in superscript.

A juxtaposition between good and bad is portrayed, and it does not take long to describe who the reader should take sides with: the devil is taken to equal trouble while God brings wealth and love. In this fragment appears the first example of how certain terminology is being presented to the reader. By writing “*yn tlacatecolotl yn diablo*” the reader is immediately presented with a negative connotation to the Nahuatl word *tlacatecolotl* (man-owl). The Spanish friars appropriated a Nahuatl composite word that already had a negative connotation according to them. We can read the following in Sahagún’s Book V of the Florentine Codex (folio 21v):

“In the night the man-owls roam around, perhaps the *nahuales*, the witches, where they harm the households of people. When you see them trying to hurt the owners of the household, place obsidian at the door, or perhaps place it on the patio, during the night. They say: “the man-owls, the witches look into the mirror [e.g. obsidian], on their way to harm people. Perhaps someone will die, perhaps they will cause illness.” With this, [they witch] will disappear. This time it does not hurt the people, when it sees the [obsidian] knife that is in the water.” (my translation from Spanish)

The Spanish translation of the Nahuatl text in Book V illustrates how certain Nahuatl words and concepts were related to a Spanish cultural framework by Spanish translators. The Nahuatl word *tlatlahuipuchi* (*tlatlahuipochtli*), which means “woman who brings light,” is translated into Spanish as “witch” (*brujo*). The *tlatlahuipuchi* was, according to Nahua speakers, a negative being that is still considered to be malign today. They are to be kept away from newborns especially, by placing a bowl of water, a pair of scissors, or an obsidian underneath the bed of the baby. Just as the text of Sahagún describes, the *tlatlahuipuchi* will go away when she sees her own reflection (personal communication Raul Macuil Martínez, see also Martín del Campo, 2009: 135, note 141). In the same fashion, people tried to warn off the *tlacatecolotl* or ‘human-owl’ in his harmful practices.

The word *tlacatecolotl* was a word that Christian clerics had appropriated from the Nahuatl language to talk about their devil before a Nahua audience since around the 1530’s or 1540’s (Burkhart, 1989: 40). *Tlacatecolotl* in the original Mesoamerican context was used to refer to the animal companion spirit (*nahualli*) that had evil intentions and caused illnesses and death (*ibid.*: 40).¹²¹ Therefore, the word was most suitable to be selected by friars and it caught on pretty quickly as is evidenced by its use in numerous ecclesiastical Nahuatl texts (*ibid.*: 41). In the eyes of the friars, it was the devil who was responsible for indigenous people worshiping deities other than their Christian God, “fool[ing] the Indians into worshipping him with *excrements* in place of the *sacraments* of the Church of God (...) [and being] responsible for the fact that the Indians committed crimes against the faith (...)” (Moreno de los Arcos, 1991: 28).

While the word for devil is present in Izcacqui, the word representing hell, *mictlan* (the place of the dead) or *ichan tlacatecolotl* (house of the devil), is missing¹²². For Mesoamerican culture, *mictlan*

¹²¹ Human beings are born with a companion: a *nahualli*. This *nahualli* can be an animal, but also a natural phenomenon such as wind, thunder, or rain. It is an ‘alter ego’ that can be communicated with through dreams. If something bad occurs to one’s *nahualli*, that person is affected by it through illness for example. The definition for *nahualli* is quite complex, more so because the *nahualli* can either be regarded in positive and negative terms. Nowadays, the *nahualli* is considered to be more malign than benevolent (see Martínez González, 2009: 220-223).

¹²² Mid-sixteenth century pictorial codex Magliabechi with Spanish commentary states that infierno (hell) should not be translated as *mictlan* but as *ichan tlacatecolotl* (Pharo, 2017).

was not so much a place to be feared, but rather simply a location where one would go when one's earthly life came to end. However, understandably it was selected by Spanish translators and missionaries to represent the evil and gruesome hellish place that Christians were to fear in life. As such, *mictlan* appears most frequently in Nahuatl doctrinal texts to refer to hell. In Izcatqui, however, the old devil does not reside in *mictlan*, nor in *ichan tlacatecolotl*, but in *ylhuicatiltic*, the black heaven (*ilhuicatl* heaven, *tiltic* black). On folio 1v of Codex Vaticanus A, heavens of different color are mentioned, one of them *ilhuicatl yayaucha*, or black heaven. This would be the heaven of the night (Alcina Franch, 1992: 268, 269). It was common, however, to describe heaven as a 'pure place' in contrast to hell, which was filled with dirt and filth, both of which are clearly associated with the color black. To support this claim, consider the Nahuatl sermon by Fray Alonso de Escalona, which states that "*ca atle tilitic ca atle catzauac calaquiz yn ilhuicac* 'nothing black, nothing dirty will enter heaven' (f.159v)" (Burkhart, 1989: 124). It would make sense, then, to locate *tlacatecolotl* in a black sphere or heaven. Burkhart makes use of linguistic methods to (re-)construct the metaphorical relationships friars used in their texts or sermons by using 'like' or 'as if' (*ihqui*). The same tactic, Burkhart explains, occurs with the use of the word *teoyotica*, which she translates as "in a sacred way" or "in a divine sense." In Izcatqui, one finds the passage: *yn miec tlama[n]tli/.../ chichicahuac teoyotica*, which translates as: the many things, they are strengthened in a sacred way or by something sacred. The text continues:

[f.1r] ¹²³	
[...] <i>yaotlatquit /...//</i>	[if the enemy governs]
<i>ictiqueleltizque ticyaochihuaz /...//</i>	we will resist it, we will fight
<i>huelilocayo yn toyaouh Auh y/...//tlapanahuia</i>	the ability of our enemy and [...] it will surpass
<i>ca yehuatl yn cenca quall /i...//tlamacehualiztli</i>	penance is something very good
<i>ynic topa[m]pa omotlama/...//hu/i/</i>	because it feared himself of something
<i>yhuan omotlaxtlahuili</i>	and it made him retribute
<i>no yehuatl y/...//milhuil ynin macehual</i>	their merit, their dignity
<i>yn itlaçohua[n]¹²⁴ y Santo [folio 1v]] huan</i>	his beloved ones, his Saints
<i>auh yn te/oyotica tlatlapoloni</i>	and divine key
<i>yhuan in teoyotica tetlaxexelhuiliztli</i>	and divine help
<i>ynic temaco yn o/moteneuh</i>	thus help is given, it has been praised
<i>teoyotica teicneliliztli</i>	the divine mercy
<i>ca yehuatl/ quimomaquili yn apostol San p[edr]o¹²⁵</i>	apostle Saint Peter gave it to them
<i>yhuan y/n ixiptlahua[n] yn ipa[n] moyetzti¹²⁶cate</i>	his image [is in] his mercy
<i>yn teoyo/tica tlatocapetlatl</i>	a divine rulership
<i>yn tlatoca ycpalli yn o[m]pa/ Roma [...]</i>	the royal seat is there in Rome

The sentence *in teoyotica tlatoca petlatl in tlatoca icpalli in ompa Roma* – a divine rulership, the royal seat is there in Rome – refers clearly to the location of office of Christianity, but makes use of a pre-colonial, Mesoamerican description and visualization of authority. In pre-colonial Mesoamerica, a ruling couple would sit on their throne (*icpalli*), which was placed upon a woven mat (*petlatl*). The

¹²³ Right margin of page damaged.

¹²⁴ Translated as *ī-tlaçō-hua[n]*, the possessive plural of *tlaçōtl* "something perforated [...], something pierced and bled" (Karttunen, 1983: 306-7). To my interpretation is added a reference to the crucifixion of Saints, in this case Saint Peter.

¹²⁵ 'o' written in superscript.

¹²⁶ 'ti' written in superscript.

combination of both was also a way to metaphorically refer to authority and power, or *petlatl icpalli* (Terraciano, 2001: 160, 165, 167).

[f.1v]¹²⁷

[...] <i>Auh no yhuan yehuatzin quimochica//h/uilia</i>	it has strengthened
<i>yn huehueintin yn principes [christi]anos¹²⁸ y//.../</i>	the great Christian princes
<i>yehua[n]tin tepalehuilztica</i>	with the help of people
<i>Tlalticpac chica//.../ tica</i>	on earth [...]
<i>quimeleltizque quinyaochihuazq/u/e/</i>	they will resist it, they will fight them
<i>/.../ oquimoneltoq[ui]tia yn t[o]t[ecuiy]o¹²⁹ dios</i>	[...] they believe in our Lord God
<i>yn infieles//.../ herejes</i>	the infidels, heretics
<i>yn imahua[n] yn icxihua[n] mochihua//.../ lo</i>	their hands and their feet ¹³⁰ [...]
<i>yn quintolinia</i>	they suffer
<i>xpianosme ynin/</i>	these Christians

4.1.1 Extension of the Holy Bull of the Holy Crusade

The arrival of the Spanish in the Americas was preceded by, on the one hand, centuries of crusades and re-conquest on the Spanish peninsula during the medieval era; and, on the other, decades of enforced Christian orthodoxy in the form of the Spanish Inquisition. In order to protect itself from any religious ‘threat,’ perceived or genuine, the Catholic Church granted indulgences to those who helped – either in terms of labour or finance – to build churches or monasteries, and to those who picked up the sword during one of its many crusades. These privileges were issued in official papal documents, named after the seal (*bullā*) that was attached to authenticate the document (Ruiz Medrano, 2010: 133). In the final decade of the eleventh century, Pope Urban II decided to call what has been termed the First Crusade to liberate the Holy Land of Jerusalem, by then already occupied by Muslims for more than four hundred years (Housley, 2007: 195; Purkis, 2008: 15). Meanwhile, the Pope issued Bulls of the Holy Crusade to grant remission of sins for those who did so. A significant event for New Spain took place in the 1570s, when the Bull of the Holy Crusade was expanded to cover the West Indies as well by Pope Gregory XIII.

[f.1v]

<i>/.../tlacamachitia yn tona[n]tzin</i>	She makes obey, our mother
<i>Sancta//Maria/ Catholica Romana</i>	the holy Roman Catholic Mary
<i>auh maço ihui//.../t/atzin</i>	and our father
<i>tohueitlatocatin Rey do[n] Felipe/</i>	the great ruler, King Don Felipe
<i>/.../ nelli ytepalehuilziticatzin</i>	his (rev.) help is true
<i>in iuhq[u]i¹³¹ yehuatl¹³² [...] yn xpiānoyotl¹³³</i>	thus it is he who [verb] Christianity
<i>Auh ynatle quimi//.../xilia</i>	and he who [verb] them nothing

¹²⁷ Left margin of page is damaged.

¹²⁸ In the text abbreviated as ‘xpianos.’

¹²⁹ ‘o’ written in superscript.

¹³⁰ Hand and feet are a difrasismo for corporal strenght or human resources (services) (personal communication Maarten Jansen, 2018).

¹³¹ ‘i’ written in superscript.

¹³² ‘tl’ written in superscript.

¹³³ read ‘cristianoyotl.’

<i>quimomauhcayt¹³⁴tilia</i>	he (rev.) keeps a fearful eye on those
<i>yn ixquich//.../ tequipanoliztli</i>	who [verb] work
<i>yhua[n] ynic quipopolohua/</i>	in order to destroy his (rev.)
<i>/.../ni axcatzin yn itlatquitzin</i>	property and belongings
<i>yhua[n]quimoyaochi/h/uilia</i>	and wage are against him (rev.)
<i>quimixnamiquilia yn tlhueliloque/</i>	he confronts the villains
<i>[f.2r]¹³⁵ Ca ye amo ça yei yomonequi yn t[<i>lac</i>]p[<i>a</i>]c</i>	it was not just four which were needed (?)
<i>chicahualiztli/ yn t[<i>ac</i>]p[<i>a</i>]c huelitiliztli</i>	strength of the land, power and authority of the land
<i>ca ça occenca yehuatl mo/naqui</i>	principally he is needed
<i>yn t[<i>o</i>]t[<i>ecu</i>]yo dios</i>	our Lord
<i>ytepalehuilitztin ypanpa</i>	for his help
<i>Ehuatzin papa pioquinto yte[n]copatzinco</i>	at the order of him (rev.), Pope Pius V
<i>yn/t[<i>o</i>]t[<i>ecu</i>]yo dios</i>	our Lord
<i>oquimotemaquili ynteoyotica</i>	he gave people holiness
<i>tet/a/ocoliliztli</i>	Mercy
<i>ytoca Sancta bulla de la Sancta cruzada</i>	called the Holy Bull of the Holy Crusade
<i>yhua[n] huel huei tetlaocoliliztli</i>	a very great mercy
<i>oquinmomaquilia yn ixquix¹³⁶chtin</i>	that he gave to all
<i>ynitla /...// yopa[n]tzinco nemi su m[<i>a</i>]¹³⁷gestat</i>	[...] to live in [according to] his Majesty
<i>in iuhça /...// p[...]/m mitoz mocaquiztiliz</i>	[...] it will be told, it will be declared
<i>auh ynixqui/ch/</i>	and all

The Don Felipe mentioned in the text is King Philip II of Spain, who reigned between 1556 and 1598. According to Martínez López-Cano (2014: 19-20) the Bull of the Holy Crusade was issued less frequently in the 15th century. However, King Felipe II was strongly opposed to the Protestant Reformation, the start of which is generally attributed to Martin Luther's writing in the beginning of the sixteenth century. Under his reign, Pius V was Pope between 1566 and 1572 and was notorious for his attempts to eradicate heresy. The Bull was extended to the Indies by his successor, Pope Gregory XIII:

<i>[f.2r]</i>	
<i>auh yn ynehuatzin Santo p[<i>adr</i>]e¹³⁸ gregori[o</i>	and this one, the Holy Father Gregorio XIII
<i>de]çimo tercio</i>	
<i>yn axca[n] moyetztica auh yn /...//</i>	the one (rev.) who is there now
<i>pachilhuia yn Santa yglesia catholica/...//na</i>	the one who governs the Holy Catholic Church
<i>ça[n] no yehuatl ypa[m]pa yn qualli</i>	He, through his good kindness,
<i>tlay/cnelliliztli?//</i>	
<i>quitlachicahuilia yhua[n] occe[n]ca qu/...//lia</i>	he animates him to work and also very much [verb]
<i>yn omoteneuh bulla De la Sanc/ta Cruzada//</i>	the Holy Bull of the Holy Crusade was announced
<i>yn ica mochi tlacatl quimacehuaz quic/...//</i>	at one moment, all people will obtain it [verb]
<i>yn ixquich omoteneuh yn teoyotica</i>	all that was mentioned divine [...]
<i>tet/...//tli teyencililiztli ynicquicnopilhuizque</i>	[...] compassion so that they will obtain it,
<i>/Espa//ñoles ihua[n] in indiosme</i>	Spaniards and Indians
<i>yhua[n] yn çaçoa p[...]/yn cha[n] chihua</i>	...make home...

¹³⁴ 't' written in superscript.

¹³⁵ Right margin of the page is damaged.

¹³⁶ An 'o' has been corrected with an 'x.'

¹³⁷ The text reads 'sumgestat' for 'su magestad' or his Majesty.

¹³⁸ 'e' in superscript.

<i>yn cate yn nemi yn indias tla/tic//pa[c]</i>	Are (dwelling), who live on the lands of the Indies
<i>yn toquichtin ynçihua</i>	men and women
<i>yn iuh caquizt[ia] iuh motenehua</i>	thus it will be heard, thus it is announced
<i>yn ipa[n] omito bulla</i>	the bull was pronounced
<i>yhua[n] h[...].ues ynquimotemaquilía</i>	
<i>yn Sancto Padre y [...]</i>	the Holy Father (rev.) gives it to people

The extension of the Holy Bull of the Holy Crusade to all “Spaniards and Indians” men and women according to the fragment above, seems to be described as a way of teaching (“making them understand”) this papal decree and with it how to live a Christian life – at least on paper. Additionally, the phrasing *yn cate yn nemi yn indias [tlalticpac]* appears to refer to the collective of those who live on the West-Indian continent, all of whom may receive mercy from the Pope in lieu of support for the anti-Islamic crusades. Giving credit to God as the giver of life and home to those who live in the land of the Indies (las Indias occidentales) is repeated on the third folio of Izcatqui where it states:

[f.2v] ¹³⁹	
<i>yn iuh nica[n] motenehua-----</i>	thus here it is being announced
<i>Inic ce[n]tlama[n]tli quinmomaquilía in ixquichtin</i>	how they give
<i>yn itlaneltoaca cahua[n]</i>	one faith to all of them
<i>tt^otecuiyo dios yn xpianome yn chaneque</i>	our lord, lord God, the Christians and the inhabitants
<i>auh yn monemitia Indias-/ /tl/alli</i>	and the one who (rev.) lives in the Indies
<i>ypa[n] auh yn anoço çan o[n]ca[n] hualazque</i>	and they will just come there
<i>y-/nin mochihuaz yntelatocoliliztli</i>	this one will happen, the hating
<i>auh ynic moyo//p/ehuazque</i>	and so that... conquer
<i>yn ipa[m]pa yn ihuecapanoloca</i>	so that is is enlarged
<i>yn Sancta /Ca/tholica</i>	the Holy Catholic (Church)
<i>yn huel ynoma ymaxcatica</i>	...plenty of wealth...
<i>ytila/.../tica mohuicazque yn o[m]pa ye oc</i>	its... they will get together there
<i>yn quimohui/cazque/ yn itiyacahua[n]</i>	the brave soldiers will gather
<i>yn iyaoquizcahua[n]</i>	their captains
<i>Su mages//tad/ yn huel quitzo[n]quixtizque</i>	it is his majesty who can end it
<i>yn quexquich/</i>	how much
<i>/.../tl yn quimicalizque naxcos</i>	... those who fight...
<i>yn anoço cani//.../ ce[n]tlamantli quichihuazque</i>	perhaps [...] one thing, they will do the act of
<i>te¹⁴⁰laocoliliztli-/</i>	mercy
<i>/...//p/alehuiliztli</i>	the help
<i>yn huel yn [n]omatca yn tla[n] ya/</i>	the one who can... already

There is very little historical documentation of papal bulls being translated into indigenous languages. One example, however, is the published 1575 sermon of Fray Juan de la Anunciación, which deals specifically with the bull of the Holy Crusade. It is entitled, *Sermones para publicar, y despedir la Bulla de la sancta cruzada: compuestos y traducidos, en le[n]gua Mexicana y castellana*. A second publication in Nahuatl by priest Elias de San Juan Baptista, currently being held in the British Library

¹³⁹ Left margin of the page is damaged.

¹⁴⁰ In superscript.

(Londen, b.37c.54) is entitled, *Compendio de las excelencias, de la Bulla de la Sancta Cruzada, en Lengua Mexicana [conpuesto por el Padre Fray Elias de S. Juan Baptista, Religioso de la orden de Nra Señora del Carmen de los descalços, desta Nueva España En S. Sebastian]* [sic].¹⁴¹ This small booklet of 24 pages was printed by the printing house of Enrico Martínez, the same author of the first *reportorio* adjusted to a Mexican context (Mexico, 1606) (Mathes, 1976: 64).

4.2 The sacrament of confession and the *Indulgencia plenaria*

The text of Izcatqui continues as follows:

[f.2v]	
<i>yn ixquich ica teo¹⁴²quiçaz cexihuitl</i>	because of all that, he will escape one year
<i>q[uin]//.../ uilia¹⁴³ yn itoca yndulge[n]cia plenaria</i>	[verb] that which is called <i>indulgencia plenaria</i>
<i>y//.../loca yn ixquich yntlatlacol yntlahuel/</i>	[...] all their sin[s] and anger
<i>/.../yca chocazque tlaocoyazque yhuan yn/</i>	[...] because of that they will cry, they will be sad
<i>/.../yc moyolmelahuazque huel nicamati/</i>	[...] and they will confess
<i>/.../yntla camo noçomo huelitizque</i>	[...] if they (rev.) would not be able to
<i>yn//.../ huel quelehuizye ynin yollo</i>	that which their hearts can desire
<i>yca neyolme/la/hualiztli</i>	because [of] confession/by means of honesty
<i>quinmotlaocolilia yn iuh tlaocolilo/</i>	they (rev.) are merciful like people will be merciful towards them
<i>/.../no[m]pa mohuica</i>	those who go together
<i>yn itocayoca[n] tierra Sanct/a/</i>	it is the signed document, it is the Holy Land
<i>y[u]h/yn iuh tetlaocolilo yn ipa[n] xihuitl</i>	thus it was indulgenced in the year
<i>yn iq[ua]c tema/l/o/Santo/[f.3r]sancto Jubileo</i>	given [in] the Holy Jubilee
<i>auh ynic mocaqui ca iehuat¹⁴⁴ yndul/ge[n]cia</i>	and thereby it was heard that it is the Indulgencia

During certain periods of the Roman calendar, punishments for sins committed and already forgiven were remitted (Ricciardelli, 2000: 4). These acts of clemency were either partial or plenary, depending on whether or not the punishment is withdrawn in part or completely. An example of such a period is the Jubilee year, which originated in Hebrew religion and recurred every 50 years during which for a complete year, slaves were freed, agricultural land was left untouched, and sold objects under force returned to their original owner. The New Testament transformed the focus on retribution of objects (objectified humans included) into one emphasizing the moral and spiritual behavior of Christians – behavior which had internalized the need of cleansing oneself from bad conduct. (*ibid.*: 4-5).

According to Izcatqui, the plenary indulgence is said to be more likely obtained by those who have an illness or who are about to die. The mendicant orders – or the religious orders that live in a modest fashion – are the ones that preach and evangelize mainly the poor. They are said to obtain the

¹⁴¹ There are hardly any references to this small *Compendio*. One is found in the work by Ascensión H. de León-Portilla: *Tepuztlahcuilolli: Impresos en Náhuatl*. Volume 1 (1988). The author has not, however, seen the book herself. Fray Elias de San Juan Baptista is referred to as one of the member of the Carmelite order, that arrived in Mexico in 1585. Correspondence about this man states that he was excellent in Nahuatl and published several documents in this language (however these are unknown to Leon-Portilla).

¹⁴² The ‘ō’ in this case is not a reference to an abbreviation, as it reads *teoquiçaz* ‘will escape from danger.’

¹⁴³ Prior in the text the *tlacuilo* describes the indulgentia plenaria as *tetlaocoliliztli*. That word, however, is not used here, rather the ending in *-uilia [-huilia]* suggests a verb here. So whereas in many other occasions, the combination of *yntoca* with a noun to indicate the translation of a Nahuatl word in Spanish (or vice versa) seems not to be the case here.

¹⁴⁴ Read as *yehual*.

indulgence and to teach it to the “indios” (*yn quitemachtitihui yni[...] yndios*). The duty of the priest is to make them obey or understand what is in the mouth of the priest (*teopizcatequitl auh ynic mocaqui camaco yn teopixque*). People will receive the Holy Sacrament of the Eucharist during Easter and some other Sacrament that is left unnamed in the text. If not, there is a risk of excommunication (expulsion from the Church altogether) and *entredicho* (being prohibited from participating in certain rituals). The text explains to the reader that during the period of Quaresma or Lent (the period of sixty days before Easter) one is allowed to eat meat, eggs, and drink milk when the mercy of the Indulgence is provided. Without that mercy, eating and drinking these products would be prohibited as a form of penance. On folio 6r, the Spanish word *indulgencia* is translated into Nahuatl as *tetlapopolhuiliztli* (*indulgencias yn tetlapopolhuiliztli*). Frances Karttunen translates this directly as ‘the act of pardon’ (1983: 236). Its verbal stem derives from *popolhuia*: ‘to pardon’ or ‘to destroy something’. The grammatical morpheme, *-liztli*, turns that verb into a noun and in combination with *te-* and *-tla-*, it becomes pardoning someone something. On the same folio, the terms *sacerdotes* is paired with *teopixqui*.

The act of confession itself, as Díaz Balsera argues in line with Michel Foucault’s *History of Sexuality*, would be an act that established a relationship between a colonial force and a subaltern penitent (2005: 117). The first holds power over the latter in that the penitent is forced to confirm the belief system of the colonizer under the threat of being excommunicated. Confession, therefore, can be considered as ‘an agency of acculturation’ (Díaz Balsera, 2005: 117). However, the act of confession only truly fulfills its purpose if the confessor understands the act itself within a religious framework. In addition, as Foucault has argued, there is a dimension of self-sacrifice and caretaking of a group at large (which he called ‘pastoral power’). If the religious agent lived a sober life in which there was no space for personal gain, then this could be all with the aim of securing a religiously correct ‘life and salvation of the flock’ (*ibid.*: 118).

In the first ten folios of Izcatqui, the *tlacuiloque* mention specific Catholic feast days on which someone can carry out specific religious acts in relation to the plenary indulgence. See Figure 33 in which these feast days are related to dates in the Julian/Gregorian calendar; these dates are not mentioned in Izcatqui, except for a few occasions. These days are indicated by the name of the Catholic Saint that is venerated on that day. Days are always referred to as *ilhuitzin* followed by the name of a Saint. The *-tzin* ending is the reverential suffix and as there is no absolutive suffix *-tli* the nouns are possessed. So what we read is, “its day of [Saint],” in a honorific manner. There are also instances in which an important day is referred to not only through the celebration of a Saint, but also through an actual date in the Western calendar as well. On folio 8v, for example, the *tlacuilo* writes the following: “*onca indulg[e]c[ia] p[lena]x[i]a yp[an] yc caxtollilhuil omei diciembre yn ipa[n] /ilh/uitz[i]n ynitoca sancta maria de la o*”; or “there is plenary indulgence on the eighteenth of December, on its day of Santa Maria de la O.” This points to the idea that, on the the 25th of March in this case, the celebration featured an extra remembrance alongside the annunciation of archangel Gabriel to Mary that she was chosen to carry the son of God. This celebration is part of the final week of the Advent during which seven O-antiphons (songs that commence with the exclamation ‘O’) are sung. See Appendix G for a complete transcription of folios 7r to 9v.

When taking into consideration the list of days mentioned in Izcatqui, a number of observations can be made. First, that for almost every day a corresponding date in the Julian/Gregorian calendar is lacking. Second, that no additional information is provided for Saint Days and other important celebrations in relation to the plenary indulgence. And, third, that there are a couple of references to celebrations for the dedications of religious places in Rome; a place in the world that was talked about as the seat of religious authority but far away from Central Mexico. We cannot, however, make any observations about why – and in what manner – Christians celebrated during the Day of the Innocents or on the Saint Day of San Sebastian.

Day	date according to the Julian/Gregorian calendar
<i>ylacatilistzin ylhuitzin toteo</i> 'birthday of our lord'	25 th of December (Christmas)
Maytines	25 th of December
San Esteban	26 th of December
<i>ypan ylhuitzin San Esteua yn o[m]pa tep/.../ yn itocay o[n]ca[n] celio'</i>	there is a basilica in Rome on the Celio Hill which is dedicated to San Esteban
San Juan Evangelista	27 th of December
Day of the Innocents	28 th of December
circuncion [of Jesus]	1 st of January
Epiphany	6 th of January
San Sebastian	20 th of January
conversion of San Pablo	25 th of January
San Juan Chrisosto[m]	27 th of January
<i>purification chihuapilli</i> [purification of Our Lady]	2 nd of February
Sant mathias	24 th of February in some parts of Spain (Aragon and Balears), in the rest of the latin church 14 th of May
Santo thomas de aquino	28 th of January
sant benito abat [abad]	11 th of July, but for many centuries celebrated on the 21 st of March
Sant pedro max	29 th of April
Sant felipe y Santiago	3 rd of May
<i>/in ix/quich Domingo yp[an] metzli mayo</i>	every Sunday in the month of May
Sant Juan ante portam latinam [= San Giovanni a Porta Latina, Rome]	6 th of May
<i>aios de pur /.../yc ye ilhuitl yhua[n]</i>	19 and 20 days in the month of May, i.e. the 19 th and 20 th of May
<i>yenahuilhuitl yhua[n] yc /.../c ylhuitl onnahui yn metzli mayo ce[m]pohual ylhuitl yn ipa[n]</i>	
ylhuitzin Sancto Bernardino	
omilhuitli Metzli Jonio	2 nd of June
Sant antonio de padua	13 th of June
San Juan Baptista yh[uan] yni octaua	24 th of June
vigilia santo padre	5 th of May
<i>visitatio cihuapilli</i> [visitation of Our Lady]	2 nd of July (since 1969 celebrated on the 31 st of May)
Maria Magdalena	22 nd of July
Sanctiago	25 th of July
Sant pedro advicula	1 st of August
<i>chihuapilli ad niues</i> [Our Lady of the Snow]	5 th of August: celebration of the inauguration of the Church of Santa Maria Maggiore on the Esquiline Hill in Rome
<i>omilhuitl metzli Agosto</i>	2 nd of August
Sancto domingo	9 th of August
<i>chihuapilli yn icotaua</i>	22 nd of August
Sant nicolas de Tolentino	10 th of September

Sancta cruz Exaltacion	14 th of September
Sant matheo apostol	21 st of September
San tieronimo [San Jeronimo]	30 th of September
San fran[cis]co yhuan ynoctaua <i>ymilhuitzin mimicque</i>	20 th of September through the 5 th of October their day, of the dead (31 st of October, 1 st and 2 nd of November)
de dedicacion de la yglesia de sanct[o] p[edr]o y san Pablo	18 th of November
cihuapilli itoca p[re]sentacion ad populum [presentation of the Virgin to the people/in the temple]	21 st of November
sancto andres	30 th of November, 1 st and 2 nd of December
ilhuitzin in co[n]cepcion	8 th of December
<i>yc caxtollilhuil omei diciembre yn ipa[n]</i> <i>/ilh/uitz[i]n ynitoca sancta maria de la o</i>	the 18 th of December day of Santa Maria de la O
Sancto thomas apostol	21 st of December
Sancta ynes	21 st of January
San gregorio	3 rd of September
San miguel	29 th of September
Sant bartholome yhua[n] yn octaua	11 th of September
San agustin	28 th of August
cihuapilli Natividad	8 th of September: Nativity of Mary
consecracion del salvador	Unclear

Figure 33. Table with feast days and plenary indulgences from Izcatqui related to dates of the Julian/Gregorian calendar.

4.2.1 Indigenous appropriation and clandestine use

The first folios of Izcatqui refer to the official papal bull as issued by the Pope, which was a lengthy document and so was not read by many. There was, however, another type of text – produced en masse – that was related to the Bull of the Holy Crusade and plenary indulgences. These were one-page documents of often no more than 500 words that were sold to basically anyone in order to make general restitution (Chuchiak, 2004: 67; Ruiz Medrano, 2010: 133). According to Victoria Cummins, these kinds of texts – such as, in her example, the *Bula de la Santa Cruzada* – were a “dependable form of revenue for the Spanish crown, which ostensibly put the money toward fighting the enemies of Catholicism, but actually treated it as a form of general revenue” (1988: 438). The income that came from these simplified-bulls thus did not go directly to the Church, but was a form of income for the Spanish monarchs (see also Chuchiak, 2004: 81). The price that had to be paid for a simplified-bull depended on status and income; but, according to Cummins, there was a category created for indigenous peoples who were believed to have less financial means to purchase such a text (1988: 438). The text itself often referred to its first publication in colonial Mexico in 1573 and its commission by the Spanish Commissary General of the Santa Cruzada. It also included an explicit statement that the money that was obtained through the selling of the simplified-bull was to be spent in the battle against “infidels and heretics”: a power that had been ordained and granted to the Spanish Monarch by the Pope (Chuchiak, 2004: 67).

While initially everyone in New Spain could purchase him or herself a simplified-bull, in 1621 King Philip III decided that any such text owned by indigenous people had to be confiscated:

“In 1621 the Crown specifically ruled that Spaniards alone were allowed to acquire, handle, and collect these bulls. Furthermore, all of the bulls in circulation had to be tallied inventoried to ensure that the Indians no longer possessed any. The order was universal – not a single copy of the Bull of the Holy Crusade could remain under the control of Indian pueblo authorities or commoners.”
(Ruiz Medrano, 2010: 133)

News had reached Spain that indigenous peoples made “improper” use of the simplified-bulls they bought. The work by John Chuchiak (2004) discusses an added fragment of European paper with handwritten text to the Mayan pre-colonial codex Madrid. Alongside the work by Ruiz Medrano from 2010, it became clear that indigenous peoples appropriated the simplified-bulls in whatever way they saw fit. English-man Jon Chilton, who travelled to Mexico around 1579, noted how some indigenous people made incorrect use of simplified-bulls and tore them up in small pieces that were believed were to grant them thousands of years of pardon if stuck to the walls of the house (Weckmann, 1992: 318). Another example of a supposedly improper use of the simplified-bull by indigenous peoples comes in the form of a small patch of handwritten text glued on to a page of bark paper on page 56 of codex Madrid (Chuchiak, 2004: 63). In the present there are very few examples of printed, let alone handwritten, texts that have been incorporated into these types of church documents. In fact, according to Chuchiak, these kinds of handwritten additions were only undertaken in periods in which the availability of printed bulls failed to meet demands (2004: 76). The patch on page 56, then, was probably written somewhere in the final years of the sixteenth century or at the beginning of the seventeenth century (*ibid.*: 72). This patch was thus added well before indigenous people were officially prohibited to buy and collect bulls.

The 1621 decree, however, did not necessarily change the treatment some of the simplified-bulls received from indigenous peoples. Ruiz Medrano discusses an example of a trial in 1684 in which a group of Zapotec people from San Francisco Caxonos were charged with idolatry (2010: 134). A woman was said to have stored bundles of *yaguichi* paper made from maguey alongside feathers. The bundles were removed by another person and eventually abandoned. Inside the bundles was an array of objects such as palm leaves and wrappings containing coloured feathers which were said to have been bloody. Alongside these freshly made bundles were two older ones which, besides similar objects, also contained a “holy bull of the fourth sermon of the ninth conception of Paul V” (*ibid.*: 134-135). Simplified bulls have also been found as attachments to colonial documents written by native authors. Among these documents were records of primordial titles, pictorial maps, and native nobility (*ibid.*). Several examples mentioned by Ruiz Medrano were additions made in the eighteenth century, so were contemporaneous with Izcatqui.

It is questionable whether those who incorporated a bull into a text were able to read it. Nonetheless they attributed the paper with a sacredness that would further enhance the sacredness of either an indigenous ritual bundle or document. The fact that the document represented the granting of indulgences that came directly from the authority of a religious leader (the pope) and the fact of its physical form (a bull) combined to make the simplified-bulls exactly the kind of objects likely to be appropriated by indigenous peoples. Both for its content it was a current topic for literate indigenous peoples and, when viewed with the example of Ruiz Medrano in mind, for people outside of the Catholic religious sphere as well.

4.3 Prayers

In Christianity, the Divine Office or the Liturgy of the Hours prescribed a set of prayers to be recited during particular moments throughout the day (Taft, 1986: 3, 11). The exact time and amount of prayers varied throughout the centuries, but in its most elaborated form the program is as follows: *Matins* at midnight (also called *Vigils* or *Nocturns*), *Lauds* or Morning Prayer at sunrise, *Prime* at the First Hour of the Day, *Terce* at the third Hour of the Day (mid-morning prayer), *Sext* at the sixth Hour of the Day (noon), *None* at the ninth Hour of the Day (mid-afternoon), *Vespers* during the evening and finally *Compline* at nightfall. The most important moments, however, were the morning, noon, and evening, which all comprised both private and communal prayer [i.e. in Church] (*ibid.*: 27-29). After a reorganization of the Church in the twelfth century in which parishes were served by a single presbyter and not by many clergy as was the case before, the organization of recitation of all the offices in church became problematic due to a lack of time. Praying, therefore, was carried out more frequently in the private sphere. This development led to a dire need for a portable breviary that collected all texts necessary to recite the offices (*ibid.*: 298-300).

These breviaries were a great tool for the traveling missionary outside of a convent who was not always able to join a congregation. Such missionaries were able to conveniently use their small and shortened breviary – which could be hung at the waist – at any opportune moment (Lara, 2008: 38, 65). For obvious reasons, the pocket-sized breviary was popular in New Spain, although it is likely that not many have survived the destruction of books by the Inquisition due to their shortened and thus ‘incorrect’ liturgical content. The Council of Trent had established an official breviary structure, format, and content (*ibid.*: 39). Additionally, Lara writes that the Council of Trent set up Franciscan regulations on who had to recite the Divine Office in 1567: “[...] the cleric-friars were to recite the psalms from the breviary, while the lay brothers recited Our Fathers and Hail Marys” (2008: 39). This might be linked to what appears on folio 10v of Izcatqui and the whereabouts of the document. The header of folio 10v refers to Maytines [*maitines*] in Spanish:

[f.10r]

Maytines

¶ *Per signom crucis. paternoster. Ave maria Credo. oro. [sic]*

*Totecuiyo diose totatzine
teycnoytanie nimitz no-/tlatlauhtilia
maypampa yn itlayhiyohuilistzin
yn-/motlaçopiltzin Jesuxp¹⁴⁵
y[n]totlaçoteycnelicatzin
yh[ua]n/ ypampa
yn itlaçonantzin Sancta m[ari]a¹⁴⁶
cenquisca ychph¹⁴⁷o/tli¹⁴⁸
yn itlayocoyalis neteq[ui]pacholis
çotlahualitzin ma/mopaltzinco¹⁴⁹
xicmotlapolhuili ynocamac
maxic/motlahuilili ynotlacaq[ui]llis
maxicmomelahuaca/tlachiyeltili*

Our lord, oh god, oh our father
love God, I plea to you
because its spirit
the lovely child, Jesus Christ
our love, the righteous one
and/because
its beloved mother, Saint Mary
entirely virgin
her sadness, pain
faintness/helplessness, through you/by your will
open my mouth
may it illuminate my understanding
may it teach the correct way

¹⁴⁵ Read as ‘Jesucristo.’

¹⁴⁶ ‘a’ written in superscript.

¹⁴⁷ ‘h’ written in superscript.

¹⁴⁸ Read ‘ichpochtili.’

¹⁴⁹ See dictionary Arenas [1611]: mopaltzinco ‘por tu vida’.

y[n]noçielis¹⁵⁰ maxicmixitili ynotlalna/.../q[ui]lis¹⁵¹
ynic huel nimitznotlaçocatlatlauhtilis
ynic /...//chinoyolo nanima nonenepiltica
noçielistic/...//
notlaçocayhtilis t[o]t[ecuiy]oe
mahuel yehuatl maniman/...//
can xinechmopalehuili mamahuis yectenehual/
y[n] dios tetaztin yhua[n] dios tepiltzin
yhua[n] dios esp[iritu]/
yn axcan yhua[n] ymochipa
omayih mo¹⁵²chihua__
¶ t[o]t[ecuiy]oe Jesuxpoe¹⁵³
totlaçoteyenelicatzine
mamo/paltzinco xicmotlatili¹⁵⁴
ynoyolo mohuicpatz/inco//
ynic nimitznocenquiscatlaçotilitzinoz
¶totlaçotemaquixticatzine Jesuxpoe¹⁵⁵
mamopaltzin¹⁵⁶/co noyolo ytic
xicmotlalila yn ixq[ui]ch
motlay/hiyohuilistzin ynic nictlaçocaylnamiq[ui]z
ynix[qui]ch [f.10v] nopanpa
Oticmihyohuiltitine
¶ notlaçoteohue Jesuxpoe¹⁵⁷
mamopaltzinco xi_/nech mixpatilili
ynixq[ui]ch motlahiyohuiltitine_/
ma mochipa yc nimitznoyectenehuili
nimitz_/noyectenehuilitzino/
¶ notlatocatzine Jesupoe¹⁵⁸ ynic nopampa
cruz/i?/tech otetposminaloc ymomatzin
ymocxitz[i]n/
mamopaltzinco xicmotepozmili ynoma
ynoc/xi yn itech tlamaçehualis crus
ynic nimitznote/potztoq[ui]listzinos_
/¶t/otecuiyoye Jesuxpoe¹⁵⁹notechiuhcatzine
yn iuh//y/panpa cruz titech mitzmotiliniq[ui]
mamopal//tzinco/ mohuicpatzinco xicmotilini

ynoyoliana//.../ma __ __

my [heaven] may it lift [my thinking/memory]
 so that with my love I plea to you
 [...] my heart, my soul, with my tongue

my beloved, oh our Lord
 certainly afterwards [...]

may he help me from my fear, praise
 god father, and god child
 and god spirit
 now and forever
 thus it will be [i.e. amen]
 Oh our lord, oh Jesus Christ
 oh our beloved righteous one
 may by your will
 my heart be placed toward you/close to you
 so that I will love you entirely
 Oh our beloved master, oh Jesus Christ
 for your life, my heart inside
 may all be placed toward you/close to you
 his spirit so that I will remember lovingly
 all [f.10v] because of me
 oh [your spirit]
 oh our beloved god, oh Jesus Christ
 for your life, may he cure you
 all, your beloved spirit
 may I forever praise you
 I praise you/my appraisal for you
 oh my master, oh Jesus Christ, because of my love
 he was nailed to the cross by its hands
 and his feet
 for your life, may it pierce my hand
 my foot, with the offer of the cross
 as such, I will enter a piece of metal
 oh our lord, oh Jesus Christ, oh my creator
 because of the cross, may it tighten/turn
 for your life, towards you, may it safeguard your
 life
 my heart [my soul]

¹⁵⁰ According to Raul Macuil Martínez çielis refers to *cielo* or heaven.

¹⁵¹ Perhaps ‘yn notlalnamiquiliz.’

¹⁵² ‘mo’ written in superscript.

¹⁵³ Read as ‘Jesucristo.’

¹⁵⁴ Suggested reading is *xicmotlalili* as we find 3 lines below as well. In that case, the writer intended to use the verb *tlalia* or ‘to place’. If the author did intend to use the ver *tlatia* the sentence would read ‘may by your will my heart be hidden away from you, contradictory to a Christian message (personal communication Justyna Olko 2019).

¹⁵⁵ Read as ‘Jesucristo.’

¹⁵⁶ ‘n’ written in superscript.

¹⁵⁷ Read as ‘Jesucristo.’

¹⁵⁸ Read as ‘Jesucristo.’

¹⁵⁹ Read as ‘Jesucristo.’

<p> <i>/¶no?/t[o]t[ecuiy]oe Jesuxpoe¹⁶⁰ypalnemohuanie</i> <i>nimitzno/t/etlauhtilia ynipanpa</i> <i>motlayhiyohuiliztin /.../mopactzinco¹⁶¹</i> <i>q[ui]n]man¹⁶²que xocohuitzyahuali</i> <i>ma//mop/altzinco nocpac xicmomanili</i> <i>y[n] xocohuitzya/huali/.../</i> <i>yn yehuatl necnomatiliztli tlamacehua//l/is/t/li</i> <i>ynic ninocnomatiz¹⁶³ mopaltzinco_</i> <i>¶ notecuiyoye Jesuxpoe¹⁶⁴notlaçotatzine</i> <i>Nimitz/notlaçocatlauhtilia</i> <i>yhua[n] nimitznotlaçocatla/ machiltia</i> <i>yn ipampa yn ixq[ui]ch</i> <i>motlayhiyohui/[f.11r] litzin</i> <i>ca çan ticmopaccahiyohuilti</i> <i>yn cenca/miec tetentlapiquiliztlatolli</i> <i>ma mopaltzinco/</i> <i>Xinechmopopolhuilitzino</i> <i>ynixq[ui]ch notlatlacol¹⁶⁵/tlatol</i> <i>ynic onimitzmahuil q[ui]xtilitzino</i> <i>yhua[n]/yc nimitzmotlatlauhtilitzinohua</i> <i>y[n]mitzmitiliq[ui]/y[n] xococ chichicatl</i> <i>mamopaltzinco xinechmo/popolhuili</i> <i>ynotlatlacol ynatliliztica onicchiu/h</i> <i>y[u]h yc nimitznotlatlauhtilia</i> <i>yn ipampa/motlayhiyohuiliz nacatzin</i> <i>mamopaltzinco y/yc xinechmopopolhuili</i> <i>ynotlatlacol tla/?q[ui]/liz yhuan</i> <i>yc nim¹⁶⁶itznlatlauhtilia yn ipampa/</i> <i>motlayhiyohuilis yxtelolotzin mamopa/tzin//co_</i> </p>	<p> oh our lord, oh Jesus Christ, oh for all I ask of you, because of your spirit [...] before you they offer the crown of thorns in front of you, above me, may you give it the crown of thorns he has modesty so that I will be modest in front of you oh lord, oh Jesus Christ, oh beloved father I plea to you and I preach to you because of all your spirit we are just happy [with the] spirit [very much] the word of the false testimony by your will please forgive you all my sinful word[s] so that I shake you and pick you up and then I pray to you he dresses you up in arrows, acid bile (?) by your will, please forgive me my sin, the drink, I made it when I plea to you it is because of your spirit, body by your will, please forgive me my sin [?] and when I plea you it is because of your spirit, its eye, before you </p>
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The above refers to three prayers (*per signum crucis*; *pater noster*; *ave maria*) and the confession of the faith or Apostels' Creed (*credo* or 'I believe' in Latin). The listing ends with *oro*: the Latin word for 'I speak' or 'I pray'. The text, therefore, probably refers to a ritual in which the reader first reads *Per signum crucis* (The Sign of the Cross) as a reminder of the physical act of making the sign of the cross while saying 'In the Name of the Father, the Son and the Holy Spirit, Amen'. Through this ritual – which was designed to be liminal in a sense – the earthly word is taken to have been connected to a spiritual and religious one. This act was then followed by a recitation (*oro*) of the Pater Noster, Ave Maria, and Credo. These are only referred to by title, not in full text, therefore it can be assumed that their reference is just a reminder to recite what is assumed to have been already learned by heart.

Given that the titles of the prayers are listed under the header of matins, this leads one to think that these were recited as morning prayers. Versions of prayers of the Divine Office were translated into

¹⁶⁰ Read as 'Jesucristo.'

¹⁶¹ *icpactzinco* 'encima de la cabeza de una persona de calidad' (GDN).

¹⁶² The letters 'an' are underscored.

¹⁶³ Literally 'yo me sé pobre', humildad.

¹⁶⁴ Read as 'Jesucristo.'

¹⁶⁵ 'l' written in superscript.

¹⁶⁶ 'tz' crossed out.

indigenous languages soon after the conquest (Lara, 2008: 39). One of the first Franciscan friars to arrive in colonial Mexico was Flemish Pedro de Gante. He was born in the late fifteenth century as Pieter van der Moeren, and was named after the Flemish city of Gent close to where he was born. After his arrival in Mexico, he quickly learned Nahuatl. De Gante was an active missionary, who without doubt knew *The Pater Noster*, *Ave Maria*, and *Credo* by heart. These prayers are even mentioned in a Medieval Dutch text by Jan de Weert, “*Nieuwe doctrinael of Spieghel van sonden*” [New Doctrine or Mirror of sins], which confirms that friars were adequately prepared before they embarked on any missionary work (ed. J.A. Jacobs, 1915: 166). Now, although de Weert’s work is far away from sixteenth century New Spain, the condition of a confessor to know the basic prayers fits perfectly with the prior folios of Izcatqui and its emphasis on the plenary indulgence. According to William Hanks, the *doctrina* taught first the sign of the cross in combination with four prayers [i.e. The Persignum, The Our Father, The Hail Mary and The Credo]’ (2010: 250). Making the sign of the cross is an important inaugural gesture for Christian rituals as it protects against devilish influence. The prayers that Izcatqui directs a reader to recite are, according to Hanks again, meant to be recited daily prior to receiving the sacraments and were part of general missionary pedagogy (*ibid.*: 251-252).

One further genre of colonial religious texts was the bilingual confessional guide in Spanish and an indigenous language. These books were used by priests as manuals while questioning someone indigenous to the New World, and as a result were the preeminent tools to administer the sacrament of penance (Horn, 1997: 294). Well known are the *Confessionario breve* and *Confessionario Mayor, en lengua Mexicana y Castellana* [1563-1565] by Franciscan friar Alonso de Molina (the famous author of the first Nahuatl dictionary) and *Confessionario Mayor, y Menor en lengua Mexicana* [1634] by Don Bartolomé de Alva. These manuals can be traced back to thirteenth century Europe, where the Latin questionnaire helped priests to discuss which sinful acts had taken place with individuals from his congregation when this was no longer a public rite, but a private one (Alva, 1999 [1564]).

In 1611, Dominican friar Martín de León wrote his book *Camino del Cielo en lengua mexicana, son todos los requisitos necesarios para conseguir este fin, co[n] todo lo que un Xpiano debe creer, saber, y obrar, desde el punto que tiene uso de razón, hasta que muere*. This book was written for Spanish priests working with Nahuatl native speakers with the aim of helping these priests to convert the indigenous population. Apart from a Spanish introduction, the text is written fully in Nahuatl. De León, born in Mexico, mastered this language and wanted to put it to good use (Poole, 1995: 91-92). The work provides a compilation of what was perceived to be the essential tenants of a religious education, and so includes all of the following: a catechism¹⁶⁷; prayers; symbols of faith; disapproval of idolatry (which gods were adored and for what ‘evil’ ends, adoration of fire, native baptism); a correlation between the Mexican and Roman calendar for purposes of correlating Mexican feasts and beginning of months of that calendar to the Roman one; 2 instructions for confessors; instructions for drafting testaments; instructions for reciting rosaries and prayers; an account of which sins are pardoned according to the bull of the crusade; rules to serve the Christian God the best way; seven meditations of the passion of the Christ of the seven canonical hours; instructions on how to marry (including rings); and a text on how to guide a death, from prayers recited when someone is in the process of dying up to a correct burial.

4.4 Concluding remarks

The pages of Izcatqui under consideration in this chapter were not meant to be used for the questioning of an indigenous penitent in a private meeting with a priest. Instead, the character of the first 9 folios is

¹⁶⁷ These texts were also transmitted in pictographic manner, the so-called Testerman manuscripts. See for example Jansen and Pérez Jiménez’ article ‘Tiempo, Religión e Interculturalidad en la Colonia: los catecismos pictográficos de México’ (2015: 65-101).

of a descriptive nature; the Holy Bull of the Holy Crusade is explained and the reader is informed about periods and days throughout the year during which confession would be appropriate. From folio 10r onwards, however, the reader is no longer informed on religious matters, but is asked to be actively part of that religious content through gestures and speech. If we follow the work of anthropologist Roy Rappaport (1999) in our interpretation, we can argue that if individuals participate in such a ritual, they also accept the ritual and its premises. This in itself does not necessarily mean that the individual believes in the ideology or doctrine connected to the ritual, because “[...] belief is an inward state, knowable subjectively if at all, and it would be entirely unwarranted either for us or for participants or witnesses to assume that participation in a ritual would necessarily indicate such a state” (*ibid.*: 120). Nonetheless, through a public ritual – in this case the Divine Office of Morning Prayer – one attests to one’s acceptance of a ritual belonging to Christianity. These prayers give the text a formal character. Their importance, therefore, perhaps lay not so much in their textual content, but in the rhythm and religious formula of their delivery.

The structure itself of the first ten folios of Izcatqui is well thought out for another reason. In order to obtain plenary indulgence, the faithful has to recite a set of prayers – the ones mentioned by title in Izcatqui – as well as a devout prayer. The text builds up from explaining that Christianity is the one and only religion that can fight off evil and sin, to the assertion that this is the case only for those who are devout believers. Eventually, the text explains what plenary indulgence is and on what days it can be obtained. Finally, the physical act of reciting the text is revealed as that by which that devout Christian can actually obtain the plenary indulgence. These folios of Izcatqui, then, are simultaneously an advertisement for the Christian faith, while at the same time offering the product itself.

Chapter Five

European Worldview Translated: calendar, cosmos and astrology

The *reportorio de los tiempos* is a physical and tangible product of the way humans perceived the world around them. Moreover, the *reportorio* is also a product that reflects its creator's position within its world. This chapter will focus on three important and major preoccupations that influenced the way of understanding the world that is captured in the Nahuatl manuscript. In the first place, there is the human observation of cyclical changes in the natural environment (including changes within ourselves). This observation has caused a long and culturally diverse development of calendar systems throughout the world. Secondly, the entanglement of these calendar systems with the practicality of daily life and the planning of future events – be it on the fields or carrying out certain rituals or religious celebrations. Finally, the importance of these calendars in planning and to create a reference to what has occurred before and might happen in the future, on an individual and collective level. Thus, through the use of a calendar memories of both a historical and a primordial dimension are framed.

Because of the relevance of a calendar for day-to-day use, indigenous peoples and Spanish settlers tried to understand each other's way of time reckoning. There is quite an extensive amount of writing (mainly in Spanish, but also in indigenous languages) that attests to the efforts people went through to understand and interpret different calendar systems. A number of these documents not only describe a new calendar system, but also search for ways to correlate two systems. What's more, these texts highlight how difficult the endeavor really is, because alongside the study of a highly complex system it also entails communication and interpretation between different languages and forms of symbolism. For the purposes of the chapter and this thesis at large, the aim here is to describe how time is discussed by the *tlacuiloque* of Izcatqui. In this regard, I will consider the following question: to what calendar system did the *tlacuiloque* refer and how does the Nahuatl text relate to a Spanish *reportorio* in particular?

The second preoccupation that is evident in the *reportorios* and in Izcatqui is the conceptualization of the cosmos. The definition of cosmos employed here is the natural order of the universe as theorized by a certain group of people in a certain period of time. Again, here the relevant questions are: how was the cosmos represented in Izcatqui and how can this presentation be compared to that of a Spanish almanac? An additional question will also be addressed: can we determine whether or not the cosmos represented in Izcatqui is the same as the one favored by the readers of the manuscript by the time it was produced in the eighteenth century?

The third and final preoccupation of this chapter is the topic of Izcatqui's focus on astrology and divination. The analysis here will again combine several elements and so can best be summarized in terms of the following research questions. First, how can we best conceptualize what the *tlacuiloque* wrote about astrology? Secondly, how does the *tlacuiloque*'s text compare to a Spanish *reportorio*? Thirdly, what was the reception of astrology in colonial Mexico by the time Izcatqui was produced? These questions are not easily answered due to a couple of factors. Astrological discourse from what is now Western Europe was introduced into Mesoamerica as soon as the first settlers arrived. The period between that initial phase to the moment in which Izcatqui was produced is therefore long. Astrology

has a complex history in which it was both approved of and then disapproved of, and not necessarily by everyone at the same time. What, then, is Izcatqui's place within this history? Furthermore, what can we go from the type of astrological information contained within Izcatqui to make inferences about why this almanac was produced in Nahuatl and how it was used?

The content of Izcatqui represents a large period in which the calendar, the cosmos, and astrology/divination were discussed by people of both Spanish and indigenous descent throughout the sixteenth until the eighteenth century. Therefore, much can be said about their historical development up to the production of Izcatqui. This chapter will discuss some aspects of this complex history in relation to several selected fragments of the manuscript, as a first step towards developing a description of the general content of Izcatqui. There is no doubt, however, that more detailed studies in the future will yield even more nuanced details about this intriguing text.

5.1 The introduction of a new calendar system

The calendars of the Old and the New World were characterized by different terminology and different mathematical calculations. The construction and perceived experience of time in Mesoamerica was something that puzzled the first Spanish colonizers. The people of Mesoamerica had developed a calendar system that fascinated many and continues to fascinate up until today. For outsiders it is an intricate system, difficult to comprehend, and although scholars have come a long way in understanding its mathematics, there is still much to be learned about its full implications for religion, society, and daily life.

5.1.1 The Mesoamerican calendar system: *tonalpohualli*, *xiuhpohualli*, and *xiuhmolpilli*

Scholars argue that elements of what ultimately became Mesoamerican calendars originated in the Pre-classic period or Olmec horizon – a period that archaeologists have come to name the first period, from 1300 BC, in which similar traits of politics and ideology were found within a large geographical area (Stuart, 2011: 35-37). Tangible evidence that the calendar was invented at this time has yet to be found. The first real evidence of written calendar symbols so far are the Zapotec inscribed tablets with recognizable dates in the monumental site of Monte Alban in the Valley of Oaxaca, as well at San José Mogote in the same region (*ibid.*: 38). Archaeological and historical sources have taught us that Mesoamerican calendars have a protracted development. The diverse cultures of Mesoamerica share – in their own language and specific histories – calendar systems that were grounded on similar principles. The concept of a calendar plays a crucial part in Precolonial texts such as the codices. Fundamental to our understanding of Mesoamerican calendar systems are the studies of twentieth century scholars such as Eric Thompson, Linda Schele, Nikolai Grube concerning the Maya hieroglyphic books and of Eduard Seler, Karl Antony Nowotny, Alfonso Caso, Paul Kirchhoff, and others concerning the pictographic codices of Central and Southern Mexico. Their work was continued with the series of editions of and commentaries on the pre-colonial and several early colonial pictorial manuscripts by Ferdinand Anders, Maarten Jansen and Luis Reyes García.

Throughout Mesoamerica, calendars incorporated a sequence of 20 day symbols or day signs. Each day sign has its own name and iconography. Figure 34 displays the names as we know from them Classical Nahuatl of Central Mexico:

1. Cipactli (Alligator)	11. Ozomatli (Monkey)
2. Ehecatl (Wind)	12. Malinalli (Grass)
3. Calli (House)	13. Acatl (Reed)
4. Cuetzpalin (Lizard)	14. Ocelotl (Jaguar)
5. Coatl (Snake)	15. Quauhtli (Eagle)

6. Miquiztli (Death)	16. Coxcaquauhtli (Vulture)
7. Mazatl (Deer)	17. Ollin (Movement)
8. Tochtli (Rabbit)	18. Tecpatl (Flint)
9. Atl (Water)	19. Quiahuitl (Rain)
10. Izcuintli (Dog)	20. Xochitl (Flower)

Figure 34. Table with the twenty day signs from the Central Mexican calendar (after Anders, Jansen & Reyes Garcia, 1993: 52).

The combination of the 20 day signs plus a numeral in the sequence from 1 to 13 created a cycle of 260-days. This cycle was known in Nahuatl as a *tonalpohualli* or ‘count of day[s].’¹⁶⁸ Each combination of a number and a day repeated itself every 260 days (Broda, 1969: 13). The solar cycle was comprised of 18 periods of 20 day signs, taking the names of the day signs of the *tonalpohualli* and adding five extra days to form a cycle of 365 days (Anders, Jansen & Reyes Garcia, 1993: 57-59). These five days were called the *nemontemi* and were considered unlucky days (*ibid.*: 17). Each period, which we have come to correlate to the Western notion of a month,¹⁶⁹ was named after an important festival celebrated in that period (see Figure 35) (see, for example, Broda, 1969: 19-24).

1. Atlcahualo	10. Hueimiccailhuitl
2. Tlacaxipehualiztli	11. Ochpaniztli
3. Tozoztontli	12. Pachtontli
4. Hueytozotli	13. Huepachtli
5. Toxcatl	14. Quecholli
6. Etzalcualiztli	15. Panquetzaliztli
7. Tecuilhuitontli	16. Atemotzli
8. Hueitecuilhuitl	17. Tititl
9. Miccailhuitontli	18. Izcalli

Figure 35. Table with Classical Nahuatl designations for the 18 periods of 20 days of the *xiuhpohualli*.

In Central Mexico, the 365-day cycle is named as *xiuhpohualli*, a combination of the word *xihuitl* ‘year’ and *pohualli* ‘count.’ Each cycle of 365-days (a year) was named after a day sign from the *tonalpohualli*; this day is called a year bearer. Each year was named after the day sign that came five day signs later in the sequence of 20 signs. Following this, every fifth year, the year bearer day sign would repeat itself (though with a different number), so there is a total of four signs that could be designated as such. These signs in the Central Mexican calendar were House (III), Rabbit (VIII), Reed (XIII) and Flint (XVIII) (Anders, Jansen & Reyes Garcia, 1993: 57-59).

A year was known for its year bearer day sign in combination with a numeral prefix. Mathematically, the same combination of a sign and a number would reappear after 52 cycles or years (*ibid.*: 59). This greater cycle is called *xiuhmolpilli* or ‘the binding of the years’ in Nahuatl (Anders, Jansen & Reyes, 1991: 33). This name is a reference to the ceremony of the New Fire, a ritual that was held to symbolically end a 52-year period and initiate a new period by burning a ritual bundle that consisted of 52 reeds held together by a rope (Megged, 2010: 141).

¹⁶⁸ The word *tonalli* not only means ‘day’ but also ‘warmth of the sun’ (Kartunnen, 1983: 246) and simultaneously refers to someone’s life energy or ‘soul..’

¹⁶⁹ It has not been proven that the name ‘moon’ indicates a Mesoamerican reference between a time period and the astronomical revolution of the moon around the earth. Astronomically, the cycle of the moon varies in length between 27 1/3 and 19 1/2 days. The same is true for the months of the Julian and Gregorian calendar, which are also not astronomically in line with the cycle of the moon (Broda, 1969: 17-18).

The differences between the Mesoamerican and European calendar system challenged interpreters on both sides to make sense of one another's way of time reckoning. This involved getting to grips with one another's mathematics and the relation between religion and society. The following example (see also Chapter One) illustrates how the *tlacuilo* translated the concepts of time in a Western calendar for a Nahuatl readership. The example shows us that the *tlacuilo* and the reader were probably better acquainted with the Central Mexican calendar than with the newly introduced one. If not, there would not have been a need to translate the Western terminology in terms of a local system:

[f. 106v]

Anno yntoca xihuitl

mes y[n]toca metztli

Semana yntoca chiconilhuitl

día yntoca ylhuitl

obacentlaco machio/tl nanauhcan

*memento yntoca canixō/chcahuitica*¹⁷⁰

*tie[m]po yntoca hue/.../*¹⁷¹

Anno ([año], year) is named xihuitl

mes (month) is named metztli

semana (week) is named 'seven days',

día (day) is named ilhuitl

half a sign is in four places

memento is named 'the leaving of the flower'

tiempo (time)

is named [something old of age]

The following paragraph will explain the calendar system portrayed in Izcatqui by its *tlacuiloque*.

5.1.2 The calendar system in Izcatqui – Julian or Gregorian?

The *reportorio* that was used as the main source for Izcatqui was the work by Sancho de Salaya from 1542. When this work appeared, people in Renaissance Europe lived by the Julian calendar. The Gregorian calendar count was not in place until 1582 when Pope Gregory XIII issued his calendar reform in the apostolic letter *Inter gravissimas* (Pederson, 1983: 308). According to the Julian calendar there had to be a leap year once every four years (Swerdlow, 1974: 48). Throughout the years, however, such a pattern would eventually lead to an accumulation of days that made the year run out of pace with astronomical (and climatological) reality. Therefore, the Gregorian calendar introduced a refinement of the leap year system; centennial years are no longer leap years, except those that are divisible by 400 (*ibid.*: 48). Furthermore, in order to correct the drift that already had occurred, the Gregorian calendar reform omitted ten days from the month of October of the year 1582 (Poole, 1995: 106). There is one reference – or at least an attempted reference by the *tlacuilo* – to an actual year number in Izcatqui. The *tlacuilo* copied the following sentence (see Figure 36) from the *reportorio* by Sancho de Salaya on folio ii.

“E nota que en aqueste año de.M.D.xlii. tenemos.iiii.de aureo numero [...].”

¹⁷⁰ *xōchicahuitica*. It is either composed of *xochitl* ‘flower,’ *cahua* ‘to leave’ followed by ligature *-ti-* and the auxiliary verb *-ca* ‘to be..’ It can be translated as ‘the flower is leaving..’ I have not found similar words for ‘memory’ in the dictionaries consulted. Perhaps it is composed of *xochi* ‘flower,’ *cahuitl* ‘time’ (‘flower time’) and ligature *-ti* plus relational *-ca* ‘by means of..’

¹⁷¹ In Karttunen’s dictionary, the word for ‘time’ is *cahuitl* (1983: 21). Here the authors have chosen a word that indicates the old age of the subject matter: *huecauh* ‘a long time; something old’ [this word does not fit the space left on the right margin of the page though] or *hueca* ‘far away..’ It is clear, though, that the authors have used a construction that not just refers to ‘time’ in general, but to something that has history.

The sentence can be translated as ‘In the year 1542, we have the Aureus Numerus of 4.’ The Aureus Numerus – or Golden Number¹⁷² – is a 19-year cycle of the phase of the moon for each day of the year. It was important for the calculation of the timing of Easter, which involves the moon cycle. After 19 years, the cycle of the lunar phases for each day began anew again (DelBrugge, 1999: 3). For religious purposes, the Aureus Numerus cycle was therefore an important one that appears frequently in old calendars.

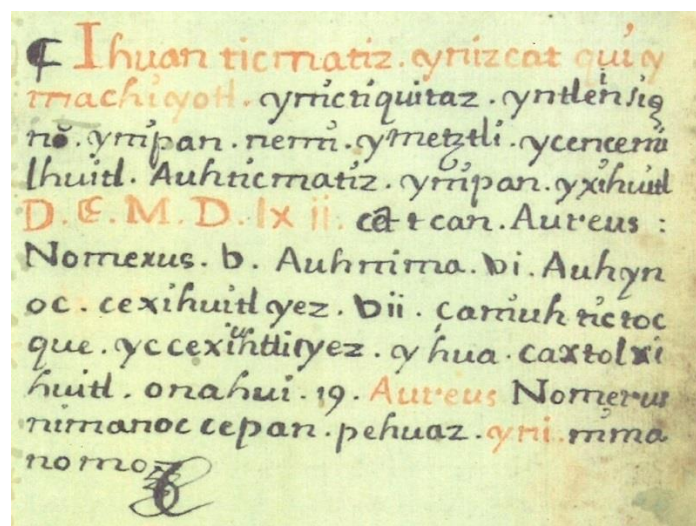


Figure 36. Doubtful translation of a Roman numeral by a *tlacuilo* of ms 3532-2, fol. 54r.

I have discussed the erroneous translation of this fragment earlier on page 65. The table of the Aureus Numerus on folio 55r, however, does not seem to be a copy from the Sancho de Salaya edition of 1542 but rather from an edition by Andrés de Li. This is evident because the *tlacuilo* added a third line for Pisces which is not present in the work by Sancho de Salaya, but it is present in Andrés de Li’s edition of 1495 on folio 135r (Delbrugge, 1999: 82) and 1529 (folio ciiii).

Izcatqui was produced in the eighteenth century. Therefore, it was produced well after the introduction of the Gregorian calendar system that was issued by Pope Gregory XIII in 1582. The *tlacuiloque* of Izcatqui were acquainted with the Pope, as the religious introduction of the Nahuatl manuscript indicates. It is clear that Izcatqui’s calendar is copied and interpreted from the *reportorio* genre. However, it is likely that the calendar that Izcatqui copies is from the mid-sixteenth century, and therefore technically refers to the Julian calendar system.

5.1.3 Teaching the liturgical calendar – mnemotechnic devices

Izcatqui contains a number of complex calculation methods that are related to the liturgical calendar. The goal in this subsection is to render the folios concerned less enigmatic, even though the complexity of the methods itself will remain. An early description in the Tropenmuseum suggests that the manuscript was “written by (a) Spanish clergyman/clergymen as a study book for young Aztec noblemen.” In the early colonial period in Mexico, the sons of nobility were trained in the “Christian thought and practice” (Schwaller, 2000: xx). In the capital of Mexico, Tlatelolco, one such school of “Christian thought and practice” was established by the Franciscans that went by the name Colegio de Santa Cruz. This school in particular was founded on the idea that people would be prone to take on the religion held by their leaders (*ibid.*). It is, however, also possible – even more likely – that Izcatqui was

¹⁷² The Aureus Numerus cycle is probably named Golden Numbers because in old calendars they appear in gold (DelBrugge, 1999: 3, note 12).

created by native Nahuatl speakers and intellectuals, who translated and adapted one or more Spanish reportorio texts.

The publication by Marijke Gumbert-Hepp in 1987 concerning a textbook on time measurement written by a certain Magister Jacobi in 1436 in Kampen, the Netherlands, can be of great help here to understand the content of some of Izcatqui's fragments. In the introduction of his work, Magister Jacobi wrote that for God's glory, this textbook was to educate young clerics. Gumbert-Hepp's research provides important clues as to the methods used in ms 3523-2 and the primary intention of its composition. As early Christian leaders ordered for the synchronized worldly celebrations of Easter to unify the religion and all its feasts, the development of clear formulas to calculate their dates became crucially important (*ibid.*: 13). The work by Magister Jacobi explains how this calculation was achieved according to three methods. Below, I explain these methods in relation to their appearance in Izcatqui.

5.1.3.1 Verses and tables

In Izcatqui, a variety of verses were explained in prose and exemplified by illustrations, most often circular diagrams. These verses functioned as mnemonic devices: each of the twelve months had its own rhyme and the number of syllables of that rhyme corresponds to the total number of days held by that particular month. For example, for the month of March there was a rhyme that consisted of a total of 31 syllables, the same as the amount of days in that month. By reciting the rhyme out loud, a Saint Day could be found according to the number of the first syllable of the rhyme that held the name of the Saint. For example, if the first syllable of the name of a Saint was the sixth syllable in sequence, the feast day would be held on the sixth day of the month to which the rhyme belonged.

Such verses were known as a *cisiojanus*, named after the oldest Latin version that begins with 'Cisio Janus' after the circumcision of Jesus on the first of January (Lie & Van Der Poel, 1983: 70). It was, however, not only important to know on which date a feast was celebrated, but also on which day of the week. This was calculated using the "Sunday Letter" of the year. The seven days of the week are each linked to one of the first seven letters of the alphabet. The first day of the year (January 1st) is given the first letter [a]. The first Sunday following that day would be the Sunday Letter for that year, so if the first Sunday would happen to occur on the fifth day, the Sunday Letter for that year would be [e] (DelBrugge. 1999: 88). So, first one of the twelve rhymes would be used to calculate on what day within a month a certain Saint's Day would be celebrated. Second, through the use of the Sunday Letter it would be possible to know on what day of week that celebration should occur. For example, the sixth of January (Three Kings) would count up to the letter [f]. If for that year, the Sunday Letter is an [e], then the sixth of January is a Monday. Of course, it would be a great challenge to calculate a feast day in October; therefore, another mnemotechnic device was invented. This device was a single sentence in which the consecutive words or syllables started with the first Sunday letters of the month. Two examples are:

(counting the words)

Altitonans, dominus, divina, gerens, bonus, extat, Gratuito coeli fert aurea dona fideli.

(counting the syllables)

Adam degebat ego cifos adrifex

(Lie & Van Der Poel 1983:72)

For both examples, we find that the fourth word or syllable begins with the letter [g], indicating that the month of April begins with the Sunday Letter [g] (Lie & Van Der Poel, 1983: 71-72). Although the enigmatic character of the details remains, the presence of the verses in Izcatqui (see Figures 37 and 38) illustrate that one of its aims was to teach the reader methods for the calculation of the liturgical calendar.

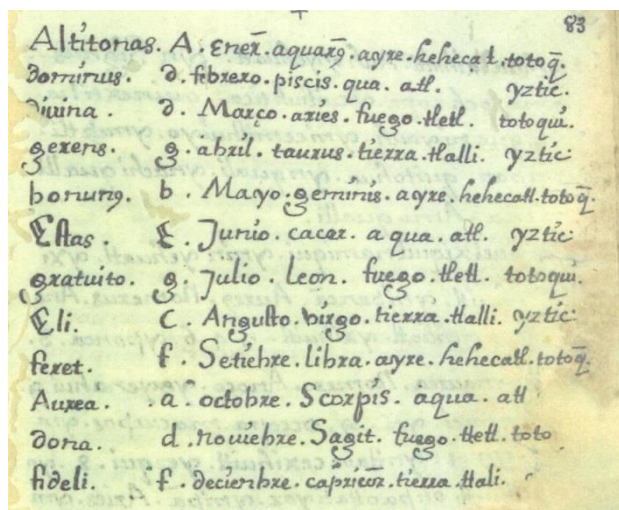


Figure 37. Table with mnemotechnic verse, ms 3253-2 folio 83r.

The table on folio 83r is explained in Nahuatl through the following:

[f. 83r] yzcatqui tapla¹⁷³ ynic yximachoz
 ynaq^e/...// quiximatis /n/equi yehuatl/
 Rale[n]dario¹⁷⁴
 y[n] queni/n// tlamel/a/uhtiuh¹⁷⁵ cemilhuil
 huel quitas ycemil/huil /vetra
 campatlatiuh apecdario
 ynopan ynim[a] yeccapā Ralendaxio
 huel mochihuas yquito[...] yn ipan ompā
 quitemos yn tleyxedxa:
 yn i[p?]ā tlatiuh Auxeus Numex9
 qu[i?]h[uica?] [f.84v] yehua xihuitl
 Auh y yehuatl yn Signus: ymo[p]ochcopa
 y[n] cuiliuhtica quinextilia yn queni yauh
 yn icemilhuiyo ymetzli yn ipan
 quitohua yn quali yn achi qualli nima
 Amo qualli
 Huel xiquilnamiqui
 ynin yehuatl yxihuitl ynipancā Aure9. Nomeru
 Anoço yehuatl yxihuitl 1546
 ypanca S yn aurea numero ye ycnahui 9

Here it is, the table so it will be known
 [...] as it is necessary that we will know
 the calendar
 how each day [is counted correctly]
 so, we will see the letter of each day well
 and where the alphabet is going
 there and here the calendar is at the right side
 it will occur well, [it says?]
 it will descend, the [redra]
 it settles in the Aureus Numerus
 [...] the year
 and the sign: your incense
 go take it, it makes it appear, how will go
 the day sequence of the month and
 it says the good [and] the mediocre good
 Here
 [and] something not good
 May it be remembered well
 the Aureus Numerus that awaits this one year
 the year 1546
 it awaits the Aureus Numerus [...]

¹⁷³ Read 'tabla'.

¹⁷⁴ Read 'Calendario'

¹⁷⁵ tlamelauhtiuh: tla+melaui+tiuh (something+straight+to go), freely translated as 'to do something the correct way'; i.e. to count the coming of days correct.

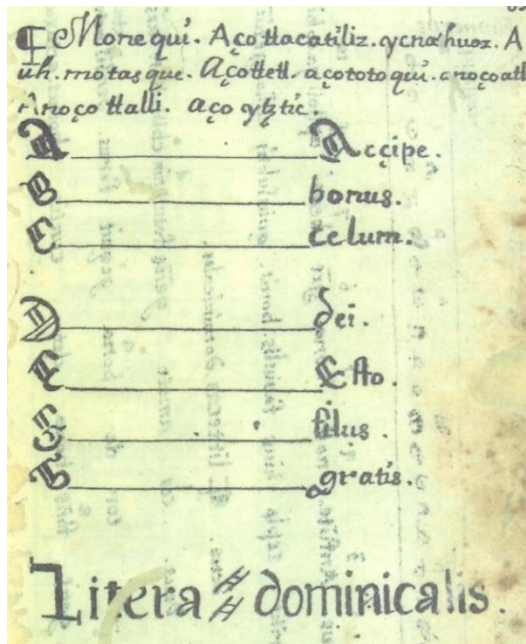


Figure 38. The Dominical Letters A through G, ms 3523-2 folio 85r.

The *tlacuilo* added two tables that link the Aureus Numerus and the Sunday Letters (see Figure 39). How the readers were supposed to work with these tables remains uncertain. However, it seems reasonable to argue that these tables functioned as a mnemonic device in the calculation of Christian feasts in the Nahua communities. Moreover, they also prove that the *tlacuiloque* of Izcatqui faced considerable complications in the making of the manuscript.

qñ. aurey	5	3	6	12	
A	f	5	2	9	16
numerye	10	15	14	19	
	15	9	13	11	
					c
b	qñ. aurey	6	5	10	3
numerye	17	12	5	14	15
	11			19	16
c	qñ. aurey	9	3	10	4
numerye	16	15	16	17	14
	2	12	5	11	15
					19
d	qñ. aurey	1	10	7	3
numerye	6	11	5	12	9
	4	9	13	2	14
					19
e	qñ. aurey	1	5	12	4
numerye	11	12	7	16	17
	5	9	12	3	14
	2	6	3	17	15
					19
f	qñ. aurey	3	5	2	
numerye	12	10		15	17
	6	9	13	5	19
	11	7	4	16	24
g	qñ. aurey	3	5	1	
numerye	7	12	9	15	19
	11	15	11	16	13
	10	14	5	19	
	2	6	4	15	

Figure 39. Another mnemotechnic device in ms 3523-2, folios 85v and 86r.

5.1.3.2 Circular diagrams

The second method of explaining verses was to exemplify them by illustrations, most often circular diagrams. This method is introduced in Izcatqui as follows:

[f.101v] *Ahuin yehuatl tlacuiloli yn tlanepantla
tlayahualotoc ynic necis Aureo Numero*

ynic huel machos yn quesqui ynitlapohual

Aro Numero: yn cexiuhtica quistiuh

[f.102r] *ticmatisque*

ca no ypan pehua yn ipohualoca yeyehuatl xihuitl

ypa[n] no pehua letxa dominical

huelixpa[n] pehua yhitic yn [symbol of cross] cruz

and in the middle, it is written

[something round] in order to show the
Aureus Numerus

so that it will be known, how many [there are in]
its count

[of] the Aureus Numerus: of the year to be
we will know it

the beginning and the count of the year
in which dominical letter it begins

in front of us, it begins in the circle at the cross

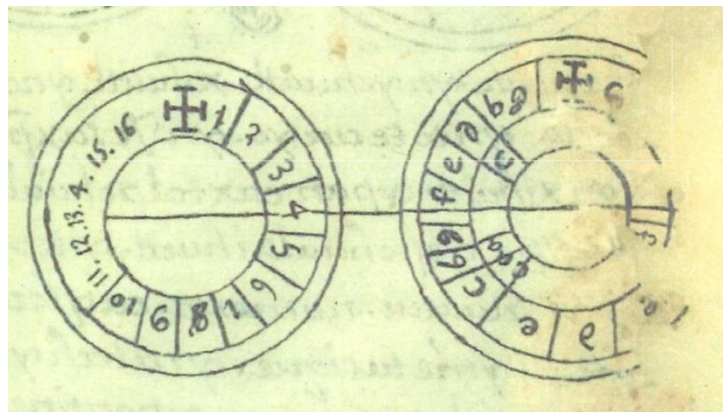


Figure 40. Circular diagrams ms 3253-2, folio 102r.

On the following folio we see two new diagrams:

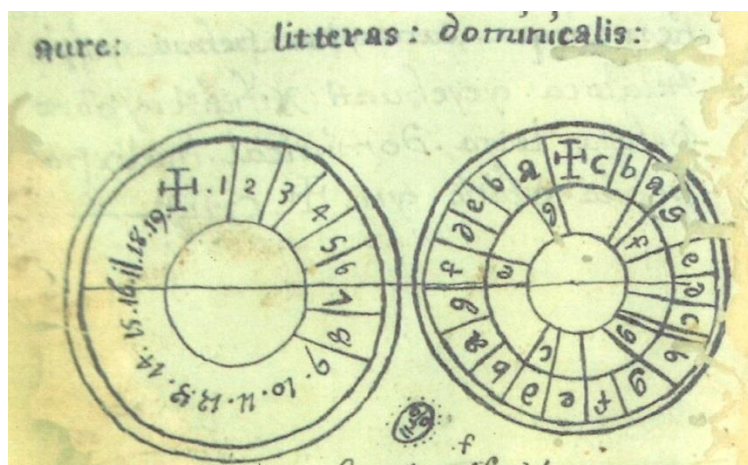


Figure 41. Circular diagrams ms 3253-2, folio 102v.

The text continues:

[...] ¹⁷⁶ <i>h ynpan yn yehuatl xihuitl</i>	in the year
<i>y nomo[...] li yn totecuiyo yn Jesuxpō</i>	[in which] our lord, Jesus Christ [was born]
<i>ye ytzonxihuitl ypan caxtolpohual xih[uit]l</i>	1560
<i>ypa[n] yepohualxihuitl</i>	
<i>yn ipohua [yn to]ca yn Auxeus nomexos</i>	it counts the Aureus Numerus
<i>ca ytechtica [...]sque</i>	[...]
<i>ynic taçique yn itech yn ye[h]uatl xihuitl</i>	[we arrive?] with the year
<i>axcan ypan tinemi: ynic huel ticmatisque</i>	in which we now live: thus we will know it well
<i>yn quesqui ynipohualoca yn auxeu numexu</i>	how many there is in the count of the aureus numerus
<i>yc necis ca yehuatl xihuitl y nipa[n] tinemi</i>	it shows the year in which we live
<i>huel etzo xihuitl ypan caxtolpo [f.103r] hualxihuitl</i>	
<i>ypan òpohua xihuitl omey</i>	1543
<i>huel quinamiqui 2 in bi</i>	[it meets 2 in vi (6?)]
<i>yn auxeu numexos nipa tictemosque Auh yn ones</i>	Aureus Numerus here, we will find it below and it appeared
<i>yn ipohualoca Auxeus niman ipa[n] tictemosque</i>	its count of the Aureus here, there in we will find it below
<i>yn tlatzintlan ycuihuhtoc</i>	below it has been written
<i>yn auxeus Auh yn Numexo</i>	the Aureus [and the] Numerus
<i>ilaones nima[n] no tictemosque yn letxa dominical</i>	it appeared here, also we will find it below the dominical letter
<i>ynic ticmelauhcapohuasque ynic huel nesis</i>	so we will count it correctly, thus is will appear
<i>yn catlehuatl metzli [...] huā quesqui tonali</i>	how many days there are in which month
<i>ypan qu[i...] yhehuatl yn ilhuitl yn huey[...]</i>	in [...] the day, the great [...]
<i>yn cecexiuhctica mopatlaiuh [...]</i>	each year to be broadens itself/widens up [...]
<i>nachtonesis yn itoca domi[nicales?]</i>	[...] that which is called [dominicales?]
<i>Septuagesima</i>	Septuagesima will appear there
<i>ça tepānestias y[...]qui ylhuitl</i>	it makes it appear over [...] the day
<i>Auh ticmatisque Cay[...]niq Auxeu Numexo</i>	and we will know it well [when] Aureus numerus is
<i>quinamiqui letxa dominical [...]</i>	[when] it meets the dominical letter [...]

If we follow the text above, the Aureus Numerus cycle is counted from 1543 onwards ‘it show[s] the year in which we live, 1543.’ This would coincide with the argument that the *reportorio* of Sancho de Salaya from 1542 was used as one of the primary sources of Izcatqui.

Interestingly, even though the reader is taught a variety of methods to identify and calculate Christian feasts, Izcatqui does not contain what typically is part of a *reportorio*: a Saints calendar. There is no list of the twelve months of the Western calendar and their corresponding number of days, their Dominical Letter, and the names of religious celebrations. This seems to suggest that its *tlacuiloque* made the conscious decision to only translate the paragraphs with agricultural and medicinal information below each month, while omitting the Saints calendar. To a much more exaggerated extent, the *tlacuilo* of the handwritten folios attached to the *Doctrina Christiana* from 1553 had done the same. From the range of information in a *reportorio*, he too selected only the agricultural and medicinal information below the Saint’s calendar and added astrological information. In the following section, one particular selection of information in the case of Izcatqui – on cosmography and astrology – will be analyzed.

¹⁷⁶ The left margin of the folio is damaged.

5.2 Cosmography

Presumably, the manuscript's content originates from the late sixteenth century or beginning of the seventeenth century. As a text belonging to this historical period, Izcatqui should be situated at the heart of the transition between the Ptolemaic and Copernican cosmographies. The manuscript itself was produced in a time that was firmly rooted in the heliocentric scientific realm: the eighteenth century. But in order to adequately conceptualize Izcatqui's cosmological content, we must first engage with the question: what concept of 'the sky' or 'a sky' does Izcatqui endorse?

Ilhuicatl: philosophical rendering of the sky

In Izcatqui, the sky is described as follows:

[f.24r]

<i>In yehuatl yn ilhuicatl quitoznequi:</i>	it, the sky, that is,
<i>tocal yn timacehualtin</i>	the house of us commoners
<i>yhuan ical y[n] tonatiuh</i>	and the house of the sun

The Nahuatl word *ilhuicatl* is translated as "heaven, sky" or Spanish "cielo" (Karttunen, 1983: 104). As Karttunen shows, the word *sky* is often equated with the word *heaven*, although the latter can be endowed with religiosity in contrast to the former, which is merely a geographical reference to 'up there..' It is no surprise that Spanish friars – who were typically looking for Nahuatl substitutes for Spanish words encompassing major religious concepts – used the word *ilhuicatl* to represent a Christian 'Heaven..'

John F. Schwaller studied the use of the word *ilhuicatl* in texts that he describes as 'pre-conquest' and 'after the conquest' (2006: 393). He recognizes that these 'pre-conquest' texts that have been written in the colonial period are fused with a 'significant Christian content' (ibid.). Schwaller studied a sample from two collections of texts that were handed down from indigenous peoples: *Cantares Mexicanos* and *Romances de los señores de la Nueva España*. The *Cantares* are a collection of 91 indigenous Nahuatl songs or poems, written down in the 16th century (Bierhorst, 1985; Moreno de Alva, 1994). Following Schwaller's analysis, we can say that a pre-colonial use of *ilhuicatl* would have referred to the "source of good things, a place of delight" (2006: 393). It would also have been used to describe a place of a being called *Ipalnemoani* or "Life Giver" or "Giver of Life" (ibid.: 394; León-Portilla, 1963: 59). This "being" is described by León-Portilla as having characteristics rather similar to the Christian God; "it" is seated in an "enclosure of clouds," "it" sets the moon and stars in motion, and "it" gives life to everything (León-Portilla, 1963: 60). On other occasions, *ilhuicatl* might possibly simply refer to the sky; and therefore, it was often represented using the image of the bird. However, as Schwaller has noted, birds, together with flowers and precious stones, were also metaphors used in Nahuatl for friendship or places of 'heavenly delight'; for example, in remembrance of deceased warriors (394).

Romances de los señores de la Nueva España is another collection of Nahuatl poems (see Garibay 1964). The few references to *ilhuicatl* in *Romances* point to the geographical and physical characteristics of the sky – such as place of thunder and rain – but also as the realm where movement is felt: *cuauhtli ixpan in tlalli mocuepa, ilhuicatl olinia ica cahualoc* 'In front of the eagle the earth turns, the sky is in movement (after Schwaller, 2006: 396, italic mine). According to Schwaller, indigenous Nahua cosmography did not include a heliocentric model of the cosmos, thus the turning of the earth mentioned in the *Romances* might have referred to another movement such as an earthquake. The description of the sky in movement underlines this idea through the use of the word for movement: *ollin*; a term also used to describe earthquakes (Schwaller, 2006: 396). What is interesting about this description of undergoing and feeling the earth 'turn' and shake is that it is immediately related to the

sky being in movement. It seems to describe an earthquake as not just something ‘of the earth,’ but also as a matter of air, with the two sharing the same realm. There is no clear differentiation or dichotomy of what belongs to a realm of earth and to a realm of sky. This is reflected in Izcatqui’s description of what ‘the sky’ encompasses: “it, the sky, that is our house [of the commoners] and the house of the sun.” There is just one realm, where we as humans live and where the Sun is seated. This in contrast to Spanish *reportorios* where they only refer to the sky as the home of the Sun: “Cielo, como scriue Zenocrito [Greek philospher], es compuesto de casa & elios, que es sol, que tanto quiere dezir como casa del sol” (Andrés de Li, [1495] in DelBrugge, 1999: 57 and Repertorio de los tiempos [...], Fernandez, Valladolid 1554: xv).

5.2.1 Cosmographic discourse - Ptolemy

It does not take long to place Izcatqui in a cosmographic discourse when going through its folios. The universe is divided into several spheres (skies) that fit the Ptolemaic geocentric model:

- 1) Moon
- 2) Mercury
- 3) Venus
- 4) Sun
- 5) Mars
- 6) Jupiter
- 7) Saturn
- 8) Zodiac signs
- 9) “Prime Mover”

There is, however, no drawing of the Ptolemaic model in Izcatqui. The Ptolemaic model has several versions or interpretations varying between nine, ten, or even more spheres. This variation is reflected when comparing two Spanish *reportorios*. Andrés de Li [Zaragoza 1495] mentions nine spheres, coinciding with Izcatqui. The *repertorio de los tiempos [...]*, published by Francisco Fernandez [Valladolid 1554] counts up to ten spheres. The table below illustrates where Izcatqui and the two Spanish works correspond and where they do not.

	<i>Izcatqui</i>	<i>Andrés de Li [1495]</i>	<i>Repertorio [1554]</i>
<i>Sphere</i>			
<i>First</i>	Moon	Moon	Moon
<i>Second</i>	Mercury	Mercury	Mercury
<i>Third</i>	Venus	Venus	Venus
<i>Fourth</i>	Sun	Sun	Sun
<i>Fifth</i>	Mars	Mars	Mars
<i>Sixth</i>	Jupiter	Jupiter	Jupiter
<i>Seventh</i>	Saturn	Saturn	Saturn
<i>Eight</i>	Zodiac signs	Zodiac signs	Zodiac; Stars (fixed)
<i>Ninth</i>	Prime Mover	Prime Mover	Prime Mover
<i>Tenth</i>			Prime Mover

Figure 42. Table with descriptions of Ptolemy’s geocentric model and spheres in Izcatqui, and two Spanish *reportorios*.

The table itself seems to indicate that there is just a slight difference between the three *reportorios*. The differences in the textual descriptions of each of the spheres, however, are much more telling, and this is important to note when trying to fit the pieces of the puzzle together in the search for the most original sources used in the translation of Izcatqui. Let's take a closer look at the description of the eighth, ninth, and tenth spheres:

Eight Sphere

[f. 33r]:

<p><i>Ca nican tiami ilhuicatl yn ican</i> <i>planetas chicon tlamatli</i> <i>ihuan yn tleyn ipan mochiuhtiuh</i> <i>anoço yn itech quiçan</i> <i>inic chicue tlamantli ylhuicatl</i> <i>ca yehuatl ynitech cate</i> <i>yx et omome oma[chiy]otl y gignos [signos ?]</i> <i>[Initial] Iuh ynic chicue tlamatli yn ilhuicatl</i> <i>ynitechca ynipan motlalia</i> <i>ym[a]tlactli omome [Signos] [sic]</i> <i>yehuatl mocuecuepa</i> <i>iniuh catqui nenono[tz]aliztli</i> <i>yniuh quitohua Pthole[m]jeo</i> <i>ynipa[n] cenpohualli o[n]caxtoll</i> <i>o[n]cen xi[qui]pilli ylhuil [red mine]</i> <i>yn ipan ynnic [sic] chicue tlamatli yl[hui]catl</i> <i>yn itechcate y[n] matlacatli omome [Signos] [sic]</i> <i>ynic mocentlallia amo ça ya yxquich</i> <i>Ca no cempoalli [sic] oncaxtoll once Signos</i> <i>ymocentlalia Amo huel</i> <i>nica mitoz</i> <i>ca no cenca monequi</i> <i>yehuatl huelquimatis</i> <i>Huelquitas</i> <i>huelhuehuetque Astrologo</i> <i>ynqueni cencan ya[black stain]can momachiyotia</i> <i>ca mochiuh ticate yciciltin</i> <i>in quexquich huei in quexquich in tepiton</i> <i>ic mocentlalia</i></p>	<p>here in the sky is the home of the seven planets and what is going to come about or emerges with the eight sky it is with [lit: and two] signs [read: twelve signs] the eight sky is with it, it settles itself the twelve signs it turns itself as if they were a consultation as was said by Ptolemaeus (In 20 plus 15 plus 1) 36.000 (8000) days¹⁷⁷ in the eight sky there are twelve signs they have not yet been gathered [there are] also 320 signs that have not been gathered well here it will be said it is very necessary that they will know it very well that they will say it very well the ancient astrologers how [...] to observe the occurrence of stars the many great, the many small when they are gathered</p>
--	--

Andrés de Li, [Zaragoza 1495] (in DelBrugge 1999:63, cursive and translation mine):

¹⁷⁷ In the Spanish original text by Andrés de Li [1495:f.117r, DelBrugge, 1999:63] we read the following: “El octauo cielo es donde tienen su asiento los doze signos. El qual faze su mouimiento segun la opinion de tholomeo en treynta & seys mil años.” The Nahuatl text literally reads: 20 (cenpohualli) plus 15 (caxtoll) plus 1 (cen) 8,000 (xiquipilli) days (ylhuil). The term ‘xiquipilli’ is a ‘purse, pouch’ that symbolically represents a unit of eight thousand (Kartunnen, 1983: 326). The translation seems to suggest that ‘xiquipilli’ was used as a reference to a high number in general, rather than specifically ‘one thousand’. So the translation into Nahuatl is ‘36 8,000 days’ instead of ‘36,000 years’.

[fol. 117r] **Del octauo cielo**

“El octauo cielo es donde tienen su asiento los doze signos. El qual faze su mouimiento segun la opinion de Tholomeo en treynta & seys mil años”

The eight sky is where the twelve signs have their seat. Which makes it movement, according to the opinion of Ptolemy, in 36 thousand years.

Now consider a selection of fragments from Repertorio [Valladolid 1554: f.xx, cursive and translation mine]:

“*Del octauo cielo, donde estan situadas las estrellas fixas, que por otro nombre llaman firmamento.*

[Initial] *El octauo cielo es, dōde tienē su asiento los, xxii. signos, y estā situadas las estrellas fijas, fue llamado firmamēto, como si dijéramos diferente o mouedoꝝ de estrellas firmes y fixas. Los Griegos lo llamauan Apsanes, que quiere decir, sin horror, porq las estrellas que en el estan, guardan siempre entre si una misma distancia, no allegando se ni apartando se unas con otras, segun los planetas. Ay en el octauo cielo, tantas y tan innumerables estrellas, quantas hasta oy ningun hombre ha podido numerar. Aun que los antiguos, como fuerō los Caldeos, Babilonios, y Egipcios cōsideraron cierta quātidade dellas, y para mejor numerar las, teniēdo atencion tambien a los efectos que experimentaron de sus influencias, ordenaron las en quarenta y ocho ymages, donde son collocadas mil y veynte y dos estrellas, las mas prefulgentes, toda la otra multitud queda ignota. Este octauo cielo segun el rey don Alfonso contiene en si tres mouimientos, uno que el tiene proprio, y dos preternaturales. [...]*”

The eight sky, where the fixed stars are situated, is by another name, named *firmamento*. The eight sky is where the twelve signs have their seat and where the fixed stars are situated, that was named *firmamento*, [how we say differently, the motor of the steady and fixed stars]. The Greeks named them Apfanes, which wants to say, without error, because the stars that are within are, are always protected within the same distance, they do not reach nor go away from each other, like the planets. In the eight sky, there are innumerable stars, many that until now, no human being has been able to count. Although the ancients, as there were the Caldeans, Babilonian and Egyptians, they considered a certain amount of them [stars], and in order to number them better, giving attention also to the affects that they were perceiving, they ordered them in 48 images, where there are gathered 1022 stars, [...]. This eight sky according to King Don Alfonso holds within it three movements, [...]

Ninth Sphere

Ms 3523-2 [f. 36v-r]:

<i>[Initial] Inic chi[u]cnauhtlamatli yn ilhuicatl</i>	the ninth sky
<i>Amotle ytechca y[n] çičitlaltin Anoço planetas</i>	is not with the stars, or planets
<i>yhuan yehuatl quicuepa</i>	and it turns them
<i>yn itzqui tlamatli</i>	clever thing
<i>yn ilhuicatl quimalacachohua</i>	he turns the sky
<i>conixitia yn ipan yn itequiuh</i>	he arrives there, it is his duty
<i>cenpohuallatmatli omei horas</i>	[in] 23 hours

yn quinamiqui yn oc nauhtlama[n]tli yn ilhuicatl he meets the four skies

Andrés de Li: [Zaragoza 1495] (in DelBrugge 1999:63, cursive and translation mine):

“El noueno cielo es donde no hay estrellas ni planets, & faze su mouimiento de leuante en poniente en .xxiiij. horas, contrario delos otros cielos.”

The ninth sky is where there are no stars nor planets, and which makes it movement from east to west in 24 hours, contrary to the other skies.

Fragment from Repertorio [Valladolid 1554: f.xx-xxi, cursive and translation mine]

Del noueno cielo. [Initial] El noueno cielo es aquien Ptholomeo llamo primer mobil, y don Alfonso considera por segundo mobil. Este segun es opinion de todos los Astrologos y Philosophos no tiene estrellas. Y por la gran diaphanidad suya es llamado cielo, christiano. Otros dizen que en este cielo estan las aguas que se leen en el primero del Genesis. y segun el canto de los tres niños. ℄ Benedicite aque que super coelos sunt. Algunos dizen (segun lo trae Beda.) Que estas aguas se hubieren aqui guardado para la ynungacion del diluuio. Otros afirman que se pussieron aqui para la templança del gran calor y fuego que el mouimiento del cielo y de las estrellas causan. y dicen estas aguas estar muy claras, muy subtiles y transparentes. y por esto algunos llamaron a este cielo Aguco, o Christalino por la gran transparencia y diaphanidad suya. Tiene dos mouimientos. Uno es preternatural, que es causado & la decima sphaera o primer mobile el espacio de veynte y quatro horas. [...]

The ninth sky. The ninth sky is what Ptolemy has called prime mover and which don Alfonso considers the second mover. This, according to the opinion of all astrologers and philosophers contains no stars. And for its great transparency, it is called the Christian sky. Others say that within this sky are the waters of which one reads in the first of Genesis. And according to the song of the three children. ℄ Benedict [...] Some say (according to what is carried by Beda) that these waters [...] are protecting from flooding due to a deluge. Others affirm that they are here to cool off the great warmth and fire caused by the movement of the sky and the stars. And they say that these waters are very clear, subtle and transparent. And for this, some have called this sky Aguco or Crystalline for the great transparency and its deluge. It has two movements. One is preternatural, which is caused in the tenth sphere or prime mover [in] the space [span] of 24 hours [...]

Fragment from Reportorio [Valladolid 1554: f.xx, cursive and translation mine]

Interestingly, what is absent in Izcatqui but present in several Spanish *reportorios* is a discussion of a tenth sphere in the Ptolemaic model of the cosmos.

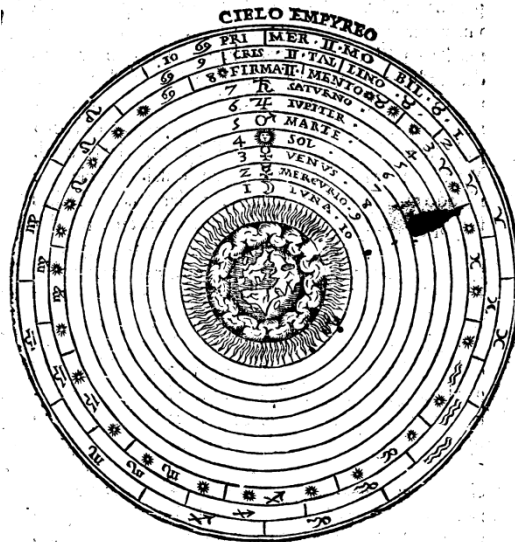


Figure 43. Ptolemy's cosmography. From Jerónimo de Chavez' reportorio de los tiempos [1584:112].

5.2.2 Mapping the World

In addition to revealing a history of conceptualizing the universe, a history of how the world as such was conceived can also be ascertained by considering the content – most notably images – of *Izcatqui* or any other relevant manuscript. The geography of the Earth, either envisioned as a flat disk or an endless round globe, has produced an incredible amount of maps and studies from the ancient Greeks onwards. And again, it was Claudius Ptolemy who was fundamental in developing world maps. His *Geographia* (ca. AD 150) is a (textual) description and prescription of how to construct a world map by listing a multitude of cities and their coordinates as a two-dimensional projection of a three-dimensional sphere (Garfield, 2012: 35). The maritime explorations of the fifteenth century forever changed the maps of the globe. Thus, the content of *Izcatqui* is firmly rooted in a period that was aimed towards the creation of detailed and correct geographic representations of the earth. The earliest map that includes the American coast was the map produced by Juan de la Cosa in 1500. This development in map making, however, is not portrayed in *Izcatqui*. Rather, the images presented in *Izcatqui* depict only the African, Asian, and European “continents,” as shown in Figure 44.

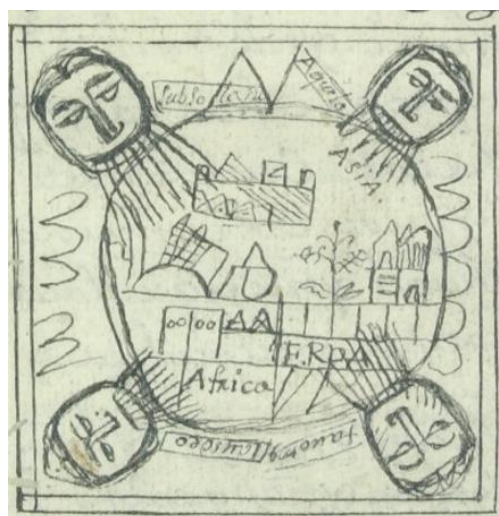


Figure 44. A T-O map with the four winds. Ms 3523-2, folio 65v.

Here, the earth is not illustrated as a twodimensional overview of how the then existing polities were conceived, but is drawn as a flat disk divided into three areas. Its upper half is designated as Asia and its lower half as Africa and Europe (ERPA). The three divisions are filled with drawings that represent a hill, buildings, and some vegetation. The depicted earth is flanked by four faces blowing wind towards the surface of inhabited lands, representing four main wind directions. These four winds are named in a clockwise manner: aquilo, fauoma [sic] , ausdeo [sic], and subsolar.

This early type of drawing of the earth, crudely divided into Asia, Europe, and Africa, is situated in the tradition of ‘T-O’ maps (or ‘T within an O’ map). This type of map is said to have been designed by the Roman Emperor Agrippa (12 BC) and is known through its many copies from the ninth century onwards (Edson & Savage-Smith, 2004: 49). The then known continents were organized most commonly with Asia at the top, often divided by the Nile and the river Don from Africa and Europe, which were themselves divided by the Mediterranean Sea. A various amount of winds and/or the four cardinals were at times also added to the map (*ibid.*: 50). This image in Izcatqui is helpful in the search for a possible reconstruction of the assembly of sources that its author(s) have used in the making of the document as there is such a T-O map in a Spanish *reportorio* from the sixteenth century (see Figure 45)



Figure 45. A T-O map similar to the one in ms 3523-2. Reportorio by Antonio de Gante, Valladolid 1581, page 56

Even though it is not so surprising to find a T-O map in ms 3523-2, it is striking that a ‘map of the world’ *excludes* the continent in which this manuscript was produced.

5.2.3 The four wind directions

Izcatqui names four winds. These are, in a clockwise manner: aquilo, fauoma [sic] , ausdeo [sic], and subsolano [sic]. As described by Vitruvius, Aquilo is the Roman personification of the north wind; Favonius is God of the West; and Auster is God of the South. In Izcatqui, this image itself is not explained through text. The four winds are not named as being Roman deities nor are there references to the world map (which is missing its author’s continent in total). Rather, it seems to have been of more importance to the *tlacuiloque* to explain the benign or maleficent characteristics of the wind on body and mind (this is the case in Izcatqui as well as the reportorio the image is from).

[f.65r]

*Nican quipohua ytemachtiani ynauhtlamatli y[n ehe]catl
yhuan ycanitlacati yba que/.../
tlatacati ytimacehualti yacatqui
ynitoca oriental meridiano ocçitede Septrettiano*

¶ *Inic centlamatli yn ehecatl yhuelaauh
[f.65v] yn orieden
ynopahualquiça yntonatiuh
yniyyelis toto[n]qui
qualli tie[m]po melahuac
yhua[n] monamiqui occentlamatli Ehehecatl
Auh ynin Ehecatl Aqualli
yhuan pantihuani
maçihui ynocentlamatli nextia
ytonacayo Amo yc quemochihuan
Amoycmiqui
¶ *Iniconlamatli Ehecatl yhualauhmerichiano
nepantlatonatiuh yztic
[m]onamiqui occentlamatli hehecatl
auhynin Ehecatl yztic
nohuiyaq[ui]ça yncani
onohuac ynicani
huehuey altepetlipan
ynopacehuaya[n] ynquauhtla ynin Ehecatl**

*cenca temicti cocolisço
yhuan yquac cencamocohua toztonteco[n]
yhuan ynoccequitlacatl nohuiya[n]
yntlacapna quicocohua yhua[n] cencateapitzaltin
¶ *Inichetlamatli ynEhecatl yhua[n]lauh
ynoccidende
yno[m]pacalaq[ui] ytonatiuh
monamiqui [Ehecatl yehuatl totoqui] oncaquiça
[occentlamatli]
yncani tonacatlalpa Amoquetechiuh**

[A]mo cocolisço
[f. 66r] ¶ *Inicnauhtlamatli yniehecatl ytoca
Septetrial
ytoca tlalpa çierco
ynopan Açı tinemi tlalpan noruegor
yztic yhuanehualo*

here the teacher counts the four
winds
and [explains] where they are born [...] those born under
what are called the oriental, meridian¹⁷⁸
occidental, septentrional
the first wind comes from
the orient
where the sun rises
its state is very warm
it is a good time, [good]
and it meets another wind
this wind is neither good
nor bad
however, the first to appear
it is not going to harm our body
we are not going to die
the second wind comes from the meridian
during the day (at midday), it is cold
it meets another wind
and this wind is cold
everywhere it appears
it came from
an ancient *altepetl*
this wind is bringing things from over the
Forest
it is mortal, illness
it hurts our head
of some people
the third wind comes from the occidente
where the sun goes down
it meets another wind, the wind is very warm
where it emerges
where it does not do anything to our body of the
land
there will be no illness
the fourth wind is called Septentrional
it is called *tlalpa çierco*
there we arrive to live in the land of *Noruegor*
it is cold [and cold]

¹⁷⁸ Meridianus/meridiana is Latin for noon, midday, and Southern. According to a German to English dictionary from 1798, the ‘Mittagsluft’ (or Meridian) is a ‘Southern Wind or Air, also Noon-Air, a Wind, a Breeze that blows about Noon’ (Ebers, 1798: 697).

monamiq[ui] nocentlamatli Ehecatl
ynopa[n] q[ui]ça tonaya
tlatotoniya ynin heecatl
Amoqlicocolisço
yhua[n] temicti
yh[uan] tlatlaxiçoquitzayana
yntelpa[n] yehica ynizquitla/.../matli
omito ynehecatl
Anquimatis[que] yn amixquichtin
no yhuan huicpa[n] Amo piasque

it also meets another wind
 it enters our body
 something very warm, this wind
 it is not something good, there is illness
 and it is mortal
 and it tears up good things
 the chest, because it is very cold
 there it was said, the wind
 you will know it, you all
 and will not keep it

Now consider a fragment from Repertorio [Valladolid 1554: f.xliii, cursive and translation mine]:

¶ Aquí cuenta al auctor de los q[ua]tro vie[n]tos, y de sus naturalezas, y ta[m]bien como gobiernan la natura humana, los quales vientos son los siguientes. Orie[n]tal, Meridiano, Occide[n]te, Septe[n]trion. [Initial] El primero viento viene de Oriente, de donde sale el Sol, su naturaleza es caliente, y produce muy claro tiempo, y tiene en cada costado otro viento. Estos vientos son buenos, y sanos, que aunque parece que alteran nuestros cuerpos no los bañan. ¶ El segundo viento viene de medio dia, y es frio y humedo, y tiene a cada costado otro viento. Estos vientos son frios y humedos y passan por el desierto de Romalia, y por las partes que son frias y humedas. Estos vientos son muy dañosos a la cabe[z]a y a todos los otros miembros, dañan y provocan mucho las camaras. ¶ El tercero viento viene de Occidente a donde el sol se pone, y tiene a cada costado otro viento que es caliente y humedo de su naturaleza, porque passan por tierras calie[n]tes, y no son dañosos a nuestros cuerpos. ¶ El quarto y ultimo viento es Septentrion, llaman le comumente en esta tierra, Cierço, el qual passa por tierra de Noruega, es frio y seco. Tiene a cada costada otros vientos que vienen de tierras frias y secas, estos vientos son dañosos a los cuerpos, bazen mucho tosser, y bazen aprecamiento en los pechos, y alli segun que estos vientos suso dichos vienen, sepan las personas guardarse dellos.

“Here tells the act of the four winds and of their natures, and also how they govern human nature, the winds are the following. Orient, Meridian, Occident, Septentrion. The first wind comes from the East, where the Sun rises, his nature is warm, it produces clear weather, and on each flank has another wind. These winds are good, and healthy, although they appear to alter our bodies which are not to bathe. The second wind comes from midday, and is cold and humid, and has on each flank another wind. These winds are cold and humid and pass over the desert of Romalia, and over parts that are cold and humid. These winds may be very damaging to the head and the other parts, damaging and [provoking places very much]. The third wind comes from the West where the sun settles and has on each flank another wind which is warm and humid of nature, because they pass warm lands, and are not damaging to our bodies. The fourth and final wind is Septentrion, which are commonly called in this land Cierço, which passes over the land of Norway, it is cold and dry. On its other flanks are other winds that come from cold and dry lands, these winds are damaging to the bodies, causing [people] to cough a lot, and for the chest to be full/closed [with mucus], and [there according to the saying, these winds are coming, known by the persons that hold them].”

It is clear that the Nahuatl manuscript follows a Spanish source text quite accurately. The text begins by naming the four winds ‘oriental, meridiano, occidente, septentrion.’ In both texts, the first wind (accompanied by another wind) is said to be warm and beneficial for people’s health (although the

Spanish text also advises one not to bathe when winds come from the East). The second wind, coming from midday in both texts, is cold and has a negative character. When this wind blows the text asserts that people might experience pain in the head. According to the Spanish text, the same wind can also be damaging to other parts of the body, but not as drastically as the Nahuatl text. According to Izcatqui, this wind is dangerous: *cenca temicti cocolisço*, the illness which it causes can even kill people. Here, the wind does not pass over the desert of *Romalia* but over an anonymous *altepetl*, a pre-colonial political and social entity constructed through consecutive years of royal lineage. This *altepetl* was geographically indicated but is not necessarily equal to the combination of *atl* ‘water’ and *tepetl* ‘mountain’ (Schroeder, 2010: 2; Lockhart, 1992: 14). The third wind in both instances comes from the west, is warm, and is not harmful to people. The final wind, Septentrion, – which goes by another name of *Cierço* in the Spanish text – passes over the land of Norway; both are mentioned in Izcatqui as well. This wind is said to be cold. However, the wind that it is accompanied by in the Nahuatl text is warm. In both languages, this wind is bad and mainly causes problems in the chest area. In contrast to the Spanish text, the reader of the Nahua text is directed to in person *Anquimatis[que] yn amixquichtin* “you will know it, you all...” In the manuscript Mexicain Fonds 381 (National Library, Paris), we also find a reference to the four winds (see also Chapter Three). The text is preceded by a drawing (see Figure 46):

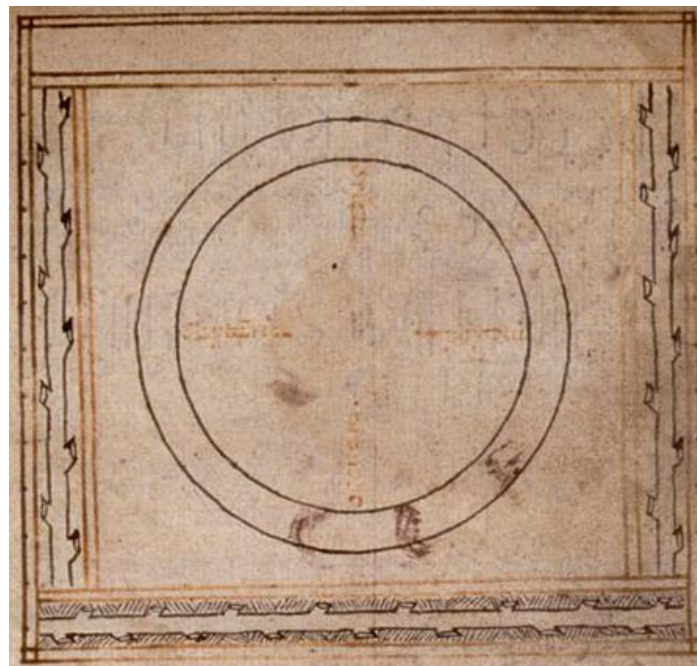


Figure 46. The four wind directions in Fonds Mexicain 381.

Although the words have faded over time, we can discern on the left *septe[nt]rion*, or the northern direction. The word on top reads *orie[n]tal*, or the east. Taking into account the four wind directions with the north to the left, the other two words that are more difficult to read would then be *meridian* (South) and *occidental* (West). This image is seemingly different from the T-O map from any of the Spanish *reportorios* or Izcatqui. In fact, there are no other iconographical elements other than a circle that would point to the image of the earth. There are no features that point to any kind of landscape, either adorned with buildings or with vegetation. Neither does the image from Fonds Mexicain 381 visually copy the idea of four winds by drawing a wind-like motif. The names of the four winds do not adorn the disk-like earth, but rather divide it into four areas.

The text presented is an abbreviated discussion of the qualities of four winds, even if the *tlacuilo* only includes two of them. In the following, the translations of the first two winds of Izcatqui and

Mexicain Fonds 381 are placed side by side below (see Chapter Three for the transcription of the Nahuatl text of Fonds 381):

Mexicain Fonds 381 [f.47r-v]

Here it is counted, the four winds come
some [are] warm, some [are] cold
some illness they bring
one, there the East approaches
second, there the West approaches
third, there the West approaches
fourth, there the North approaches
all winds, it brings all things
the East, it brings the wind, it is very warm
it is very far away
it warms all [on] earth a lot
some time ago
the next wind is very good
we want something good for ourselves
the next wind
there it brings [what] is called the South
[something] cold
we do not want for ourselves, here it is with us,
illness

Ms 3523-2 [f.65r]

Here the teacher counts the four winds
and [explains] where they are born [...]
those born under what are called the oriental,
meridian, occidental, septentrional
the first wind comes from the oriental
where the sun rises, its state is very warm
it is a good time, [good]
and it meets the first wind
this wind is neither good nor bad
however, the first to appear
it is not going to harm our body
we are not going to die
the second wind comes from the meridian during
the day (at midday)
it is cold, it meets the first wind and this wind is
cold everywhere it appears
it came from an ancient *altepetl*
this wind brings things from over the forest
we dream much
we are sick, we hurt our head, of some people

5.2.3.1 The four winds in the *Historia General*

Book 7 of the twelve books of the *Historia General* by Bernardino de Sahagún – entitled ‘*De la Astrología*’ – also includes a description of four winds. The first Wind (*ehecatl*) came from the East and was named Tlalocayotl (derivation from Tlalocan or place of Tlaloc, the God of Rain). This wind was hardly more than a breeze and provided perfect weather conditions to take a canoe and cross a lake safely. The second wind from the North was named after the place it came from: Mictlampla or ‘land of the dead.’ This wind frightened those on the water as it blows too strong for canoes to be out on the water. As a result, this wind was perceived as evil. The third wind from the West was named Ciuatécayotl after the place it came from: Ciuatlampa, “place of women”; i.e. the West. This wind was also known as One Wind or Maçua. Although this wind was not very strong, it was perceived to be very cold and dangerous, deadly even. Apparently, people would shake and experience pains in their stomach, lungs, or head as a result of this wind. However, it would not prevent them from being out on the water, because the wind itself did not frighten them when canoeing. The fourth and final wind described in the Florentine Codex comes from the South and is named Uitztlampa ehecatl after Uitztlampa where it originates. This is the wind that is feared most of all, and that even silences men out of pure terror. It is a violent wind, that tear trees from the soil and destroys walls and huts made of straw. During this wind, the sea is wild, and waves are strong and high, producing a ‘crackling noise.’ It is not safe to be in a canoe; the violence of the wind will lift any canoe high into the air. It is very furious, just as the wind from the North.

The text is then followed by a drawing of a blue sky and 11 stars. The text preceding the description of the four winds treats several appearances of stars (comet; shooting star; S-shaped constellation; and Scorpion constellation). Thus, even though the drawing itself does not represent any

of these appearances, it is related to those fragments. In addition, linguistically it takes more lines in Nahuatl than in Spanish to explain a certain theme, so the *tlacuiloque* had to find a way to balance both texts in order to keep them running alongside one another. One technique to achieve this balance was to incorporate drawings to fill in blank spaces and then to link a Nahuatl text to an otherwise Spanish text immediately next to it. Therefore, where the Spanish text on the four winds already comes to an end in the middle of the left column on folio 236r, the Nahuatl text continues the length of the entire page and even onto the consecutive one. Consequently, there was enough space in the left column for not only the image of the stars but also for a T-O map (see Figure 47). The image displays a representation of the Medieval world, a disk divided into three areas (their names are left out of the image) through an upside-down T incorporated into the disk (mostly the T is positioned as we would read a T, so the *tlacuilo* probably decided in his artistic freedom to change its lay-out). The four winds are represented by four male human figures whose heads are flanked by wings (thus Angels), that blow wind from their mouths. These winds, just as the continents, are not named as such in the drawing.



Figure 47. T-O map in Book 7 ‘de la astrología’ of the Historia General, folio 236r
<http://teca.bmlonline.it/ImageViewer/servlet/ImageViewer?idr=TECA0001503299#page/478/mode/1up>

The sequence of a description of four winds, followed by an image of a T-O map is typical for a number of *reportorios* and is also similar to Izcatqui. The T-O map itself is left unexplained in Sahagún’s work; and the same is true for similar images in Spanish almanacs and the Tropenmuseum manuscript. This raises the question – which I will not attempt to answer here – about how far the treatise on the four winds is representative of Central Mexican culture, and to what extent is it influenced by the literary traditions of Spanish collaborators. The final section of this chapter is both related to the calendar (perception of time, past, present, and future) and cosmos (celestial bodies). The aim is to analyze the astrological fragments that were selected from a Spanish almanac and to consider how they were translated. More specifically, I will focus on the following question: what do these translations tell us about how the *tlacuiloque* conceived the practice and theories of astrology?

5.3 Astrology

The *reportorio de los tiempos* genre developed in a period in which time calculation was directly related to how humans experienced their lives and how they spent their days and weeks accordingly. For most people, tangible activities such as sowing and beneficial or detrimental auguries were what mattered, not the astronomically correct number of days, hours, and minutes within a solar year (DelBrugge, 1999: 6). This is the primary reason why the almanac included what by the end of the fifteenth century was well established in scientific discourse: astrology. In the history of science, astrology has a peculiar biography. At times, it was conceived to be absolutely fundamental, and was taught at universities in Europe during the Renaissance. However, later it became considered to be an ‘irrational disease suffered by western culture’ in the modern period (Hilary Carey, 1992: 5 quoted in Avalos, 2007: 8).

In the last decades, an increasing number of scholars have analyzed (historical) astrological writings for their historical value without portraying it as either occult or pseudo-scientific. Ana Avalos, for instance, studied the place of astrology in the early modern period with a specific interest in New Spain under pressure of the Inquisition. She argues that scholars try to illustrate astrology’s scientific character by linking it to what nowadays is considered *science*: astronomy and medicine (2007: 12). This tendency, according to Avalos, reinforces the dichotomy between what is considered ‘science’ and what not, rather than illustrating how astrology was often taken to be a valuable part of the ‘intellectual landscape’ (*ibid.*:12).

An article published recently illustrates how scientific research today reinforces this dichotomy. A study by Magali Clobert and colleagues (2016) deals with the tangible effects that the daily reading of a horoscope has on people’s performances that day; and they consider for whom an effect would be apparent and why. This study concludes that people tend to internalize the negative or positive expectation (in this case told by a horoscope prognostication) that immediately affects their cognitive performance (i.e. the Pygmalion effect) (Clobert et al., 2016: 349). Prior research had already indicated that people are prone to link their personality type to the description of personality types of their zodiac sign, rather than that of any of the other zodiac signs. In addition, people also tend to relate recent events to those described in a horoscope prognostication (*ibid.*: 349). The authors of the article introduce their study by arguing that “[in] the course of history, it has always been common for people to believe in astrology and other paranormal occurrences; these beliefs have in turn shaped how people behave. While modern people seem to reject magical beliefs, in fact, when measured via subtle techniques, some people do still endorse magical beliefs” (*ibid.*: 349). The conclusions of their study are well argued and very valuable to understand the at times unconscious effects of horoscopes. The dichotomy between what is considered *science* and *pseudoscience*, however, is reinforced through the deliberate contradiction between the results of empirical research and the supposed ‘paranormal’ and ‘magical belief’ involved in horoscopes and astrology.

Brandon Dooley described astrology in an introduction of an edited volume on astrology in the Renaissance as “a form of knowledge that enthralled, informed, inspired, consoled, sometimes enraged, generations of humans, supplying essential material for artists, philosophers, creative writers, healers of every type” (2014: xvi). I consider astrology in full agreement with that statement. It is from this perspective that the text below continues. I will consider the following question: in what way is astrology discussed in Izcatqui and how does the Nahuatl text relate to possible source texts?

The content of Izcatqui was known early in the colonial period and Izcatqui itself was read in the mid-eighteenth century, so the readership of European astrology covers at least 200 years. This immediately makes it important to understand how astrology was perceived in this period by scholars – both indigenous and Spanish – and from inside and outside the colony as well as authoritative powers. And, moreover, it makes it important look into why European astrology was a topic of interest for an indigenous readership.

5.3.1 Great wise men, the astrologers *huehueitín tlamatineme yn astrologosme*

The first reference to astrology in Izcatqui is dedicated to astrologers, or as they are described in Nahuatl, *tlamatinime*, or great wise men [lit. they who know]:

[f.23r]

<p>¶ tlatlani in tlamatini tlei quitosnequ/i/ horas__ [f. 23v] [Initial] <i>In yehuatl hora</i> <i>quitoznequi ytequi/uh</i> <i>yntonatiuh yn yehuantin</i> <i>canpato/oncate</i> <i>huehueitín tlamatinime yn as/trologosme</i> <i>huelquimati y[n] metztli</i> <i>yn/ quenin momalacachohua yncemilhuitl</i> <i>ce/yohual [...]</i></p>	<p>the teacher asks questions about what the hour is the hour that is, its duty [of] the sun and they they just played, they were there the great wise men, the astrologers who know well of the moon how they turn themselves, each day each night</p>
--	---

The astrologer was thus someone who knew of the cycle of the sun and the days and the nights. The reader of the next folios of Izcatqui is being informed about the layers of the cosmos and their occupancy by planets according to Ptolemy. The astrologer is not explained in further detail until folio 33r. There, the astrologer is described as the one who observes the stars and the constellations that make up the Zodiac signs (see also page 20):

[f. 33r]

<p><i>nica</i>¹⁷⁹ <i>mitoz</i> <i>ca no cenca monequi</i> <i>yehuatl huelquimatis huelquitas</i></p> <p><i>huel huehuetque Astrologo</i> <i>ynqueni</i>¹⁸⁰ <i>cencan ya[black stain]can</i> <i>momachiyotia</i> <i>ca mochiuh ticate yciciltin</i> <i>in quexquich huei in quexquich in tepiton</i> <i>ic mocentlalia</i></p>	<p>here it will be said it is very necessary that they will know it very well and that they will say it very well the great ancient astrologer[s] how [...] to observe</p> <p>the occurrence of stars the many great, the many small when they are gathered</p>
--	--

The *reportorio* of Sancho de Salaya of 1542, says the following in the paragraph on the hour in connection to the astrologer:

<p>¶ <i>De las horas.</i> <i>De quantos antiguos leemos: los de egipto</i> <i>fuero[n] los mayores y mas ciertos astrologos:</i> <i>y los que mas supieron en los cursos</i> <i>del año: de la luna y del sol</i></p>	<p>Of the hours of how many ancient we read, the Egyptians were the greatest and most correct astrologers and those who knew the most on the course of the year: of the moon and the sun</p>
---	--

The remainder of the paragraph in both languages is quite similar in that it explains the Egyptians naming the hours after one of their gods Horus, who is said to be equal to time. Contextual information that is not provided in the *reportorios* in both languages is that Horus was one of the Egyptian sky gods (Lesko,

¹⁷⁹ Read as *nican*.

¹⁸⁰ Read as *in quenin*.

1991: 93). He is often depicted as a man with the face of a falcon and represented the reigning king of Egypt (*ibid.*: 93). During one of several fights with his uncle Seth, who killed his father Osiris, he lost one eye but triumphed. His surviving eye came to represent the sun and the other eye the weaker luminary moon (*ibid.*: 93). In the *reportorio*, we read ‘[e] los egipcianos le llamaron Horus, que quiere dezir tiempo, ca el es el que con su curso discorre los tiempos’ (the Egyptians have named it Horus, which means time, because he, due to his course, invented times’ (De Salaya 1542). In Izcatqui this is translated as ‘*auh yn ecipto tlaca quitocayotia Horas quitoznequi tiempos anoço tonatiuh* (‘and the [E]gyptians have named it Horas, which means time or ‘sun’). The word *tonatiuh* is literally translated as ‘sun’ and as the visible movement of the sun is linked to visible changes of light to dark and back to light again, it is also that which makes the day.¹⁸¹ The astrologer in the Nahuatl text is not related to any Egyptian astrologer but is characterized as someone who is great and trustworthy: a *tlamatini*. The astrologers are characterized as persons who are knowledgeable, *huehueitin tlamatinime* or ‘great wise men,’ and those who are part of a discipline with a long history, *huel huehuetque Astrologo* or ‘great ancient astrologer[s].’ For the Nahua writers and readers of Izcatqui, the word *tlamatini* had significant connotations that will be explained below. It seems likely that this word was chosen to describe astrologers in such a way as to enhance the authority of their work and accomplishments. Any link to a great Egyptian ancestry was left out – perhaps because people did not necessarily have to be from Egypt in order to be knowledgeable.

Anthropologist and important scholar of Nahuatl texts, Miguel León-Portilla, has written extensively about the *tlamatini*. He published his book *La Filosofía Náhuatl* in 1956 in Mexico. This was the beginning of a long career in which he followed in the footsteps of his teacher Ángel María Garibay Kintana. They both promoted the study and translation of Nahuatl texts and offered their own interpretations. His books have appeared in numerous editions and translations and he is a true authority within the discipline. However, his work, and that of Garibay as well, have not only been applauded but are also under scrutiny.¹⁸² For example, in his *La Filosofía Náhuatl* León Portilla aims to analyze if Nahuas experienced a ‘restlessness of spirit’ that would have, as in Greek philosophy, resulted in a ‘rational inquiry’ of where humans come from and where they are going (1990: xxiii). This illustrates how León Portilla searched for a way of thinking by indigenous peoples that measures up to a Western standard, and more crucially what he termed ‘intellectual progress’ (*ibid.*: 8). We should, however, take into account the age in which León Portilla was educated when evaluating his work. The aim in the remainder of this subsection is to illustrate how Izcatqui’s reference to the *tlamatini* has a larger connotation than purely its literal translation as ‘wise men’, and León-Portilla’s work serves as a good starting point. The first observers of (central) Mesoamerican culture wrote about these “wise

¹⁸¹ Yucatec Maya *k'in* and Quiché *k'ij*, in line with other Highland Maya languages, have the same character as the Nahuatl *tonatiuh*. The words signify both ‘sun’ and ‘day’ and through metonymy, also signify time in general (Tedlock, 1982: 1).

¹⁸² See, for example, the critique on the legacy of these scholars in the article by Jongsoo Lee (2014). He argues that after the Mexican Revolution (1910-1917) scholars had a role in the process of nation building and the formulation of ‘a Mexican identity’ as ‘mestizo.’ This creation of a mestizo identity, according to Lee, was a political means to homogenize the nation through the oppression of indigenous identities and substituting them with European values. The works by Garibay and León-Portilla inspired contemporary Nahuatl literature, however, both scholars focused on alphabetic writing which in their eyes, were not much affected by a European influence. According to Lee again, this is a false presumption to start with. By selecting alphabetic texts that went through a ‘colonization’ of their own, and the study and division into genres according to a European classification of literature, modern Nahua writers (who themselves had been taught by Garibay and León-Portilla ‘non-indigenous, white scholars’ how to write Nahuatl) were trained to produce texts in their own language, but in accordance with a European system of literature. Therefore, the ‘Europeanization of Nahuatl literary genres’ enforces a colonization and even participation of contemporary Nahua writers of their own culture (2014: 41; 44).

men.” For example, the Nahuatl contribution of Bernardino de Sahagún’s Book X of his *Historia general de las cosas de Nueva España* includes the following about the *sabio* or *tlamatinime*:

“The wise man: a light, a torch, a stout torch that does not smoke. A perforated mirror, a mirror pierced on both sides. His are the black and red ink, his are the illustrated manuscripts, he studies the illustrated manuscripts. He himself is writing and wisdom. He is the path, the true way for others. He directs people and things; he is a guide in human affairs. The wise man is careful (like a physician) and preserves tradition. His is the handed-down wisdom; he teaches it; he follows tradition. His is the handed-down wisdom; he teaches it; he follows the path of truth. Teacher of the truth, he never ceases to admonish. He makes wise the countenances of others; to them he gives a face (a personality); he leads them to develop it. He opens their ears; he enlightens them. He is the teacher of guides; he shows them their path. One depends upon him. He is the teacher of guides; he shows them their path. One depends upon him. He puts a mirror before others; he makes them prudent, cautious; he causes a face (a personality) to appear in them. He attends to things; he regulates their path, he arranges and commands. He applies his light to the world. He knows what is above us (and) in the region of the dead. He is a serious man¹⁸³. Everyone is comforted by him, corrected, taught. Thanks to him people humanize their will and receive a strict education. He comforts the ears, the comforts the people, he helps, gives remedies, heals everyone.”
(León-Portilla, 1990: 10-11)¹⁸⁴

The *tlamatini* is characterized as a guiding light for many: he or she is a bright mirror, is well-read, and is a model for others. He or she is also an owner of codices and *is* writing and wisdom. The words *in tlilli in tlapalli* (the black, the colored¹⁸⁵) is a reference to two colors that were used in painting the iconography onto the codices (Boone 2007). The codices themselves contain different types of information; historical narratives of rulers, their genealogy and their origin, and books of a religious and calendrical nature that were used during rituals and consultations. The *tlamatinime* not only owned these codices but were also the ones who were able to read their complex iconography. Sahagún’s work mentions *tlamatinime* (the wise ones), *tonalpouhqui* (counters of the days), *tlapouhqui* (counters of something) and their practices, but, in fact, they are all *tlamatinime* who possessed great, ancient knowledge and functioned as (inter)mediaries between people and divinities. Several chroniclers translated *tonalpouhqui* (counters of the days), *naoalli*, and *tlacihqui* as ‘astrologers’ just because their status and practices were so similar to the astrologers that they knew. In terms of cultural translation, the interpretative party searched for a word that for a reader of the target text (in this case Spanish) would be familiar and which would relate it directly to something that was well-known from their own cultural background. There were several disciplines in which the relative position of the celestial bodies had an importance, such as for medical and agricultural purposes (see Chapter Six).

¹⁸³ The Nahuatl text is *aquequelti* which can be translated as ‘to be proud, not to be ridiculed.’ The Nahuatl text does not provide a gender to the *tlamatini* and the third person object is also without a male or female connotation. Therefore, I do not agree with the translation of ‘he is a serious man,’ and I would argue instead that the ‘he’ reference in the fragment should be substituted with ‘he/she’ In fact, in contemporary indigenous communities the term wise person is applied both to women and to men (see Macuil Martínez 2017).

¹⁸⁴ The Spanish contribution in Sahagún is not a complete translation of the Nahuatl text and leaves out critical information. For example, the Spanish text fails to describe the *tlamatini* as one who owns books and is knowledgeable about the realm of the dead.

¹⁸⁵ According to my understanding, *tlapalli* can not be translated literally as ‘red’ but as ‘color’ (Molina, 1970: 27). In Spanish there are the words *coloreado* and *colorado*, these perhaps were used interchangeably. See also Townsend (2017) who argues that black and red ink are taken together in speech were synonymous with the act of writing.

5.3.2 Reading the Zodiac signs

Each of the twelve Zodiac signs is discussed in detail in Izcatqui and their discussion is repeated no less than three times. The first description of the constellations is preceded by an introduction on folios 36 and 37 – folio 117r in de Li.

<p>[f.35v] <i>Inic chicnauh tlamatli yn ilhuicatl</i> <i>Amotle itechca yçitlaltin Anoço planetas</i> <i>yhuan yehuatl quincuepa</i> <i>ynitz [f.36r]qui tlamatli yn ilhuicatl quimalaca</i> <i>chohua conaxitia</i> <i>yn ipan yn itequiuh</i> <i>cenpohuallamatli omei horas</i> <i>yn quinamiqui yn oc nauhtlamātl yn ilhuicatl</i> <i>¶tlatlani ytemachtiani</i> <i>tlenquitoznequi yn Signus</i> <i>in yehuatl Signus miec tlamatli</i> <i>quitoznequi yn oc centlamatli quitzonequi</i> <i>Machiyotl [...]</i> <i>machiyotl</i> <i>namiquiliztli Anoço tlazaloli [...]</i>¹⁸⁶ <i>ca yuh tiquitoque miyacpa machiyotl [...]</i></p>	<p>the ninth sky is not with the stars or the planets and it turns them clever thing, the sky turns it, and there it arrived that is its duty 23 hours it meets the four sky [skies] [the/its] teacher asks questions what the Sign wants to say the Sign is many things that is, in another way, that is Machiyotl [sign] the meeting or adjustment we see the sign many times</p>
<p><i>inezcan</i>¹⁸⁷ <i>yn aquin iztlacatini Anoço tlaneltiliani</i></p> <p><i>i[n] nelli quitohua yehuatl</i>¹⁸⁸ <i>yc mitohua tlanelliztli</i> <i>tlaqualtiloni Auh yn occenci mitohua [</i></p> <p><i>ca quitoznequi testigo</i> <i>y yniuh tiquitohua yniuh tictocayotia</i> <i>in aqui</i>¹⁸⁹ <i>huelnemi</i></p>	<p>its sign, who is a liar or someone who tells the truth something good, it says it when it says something good a provider and in a particular place it is Said that is, proof/witness thus we say it, we give it a name [who] live well</p>
<p><i>yn ipan miqui yniquallachihualiz</i> <i>yehica mitohua tlaneltiliani testigo de fe</i></p> <p><i>ca yntla catlaneltocani q[ui]chihuaz</i> <i>Auh yn occeci mitohua Signus</i> <i>Quitoznequi</i> [i.36v] <i>Armas tlahuiztli Anoço Altepetylacuiloli</i> <i>ynic quiximatiz</i></p>	<p>and which good works of faith die since it is said, something proves to be true, proof of faith if it is a believer, it will do and in some place it is said [to be] a Sign that is insignia¹⁹⁰, <i>tlahuiztli</i>¹⁹¹ or the chronicle may it thus be known</p>

¹⁸⁶ Patientive noun from *zaloa* ‘something glued/stuck together’.

¹⁸⁷ *nezcayotl* ‘sign, token, gift’ (Karttunen, 1983: 172).

¹⁸⁸ Read as *in yehuatl*.

¹⁸⁹ Read *in aquin*.

¹⁹⁰ Items or symbols to indicate someone’s dignity, also used to name the physical liturgical appearance of dignity – ring, cross, headdress of a bishop etc.

¹⁹¹ *Tlahuiztli* according to Molina translates as ‘arms and insignia.’ In pre-colonial Nahuatl, this term was used for arms and legs plates to protect an Aztec soldier or warrior priest, its hairdo, or his shield. Being a visible object or symbol, it represented the hierarchical status of warriors, each military rank assigned with specific items and hairstyles (Osvaldo F. Pardo, 2006: 68)

yn quenami ceceyaca yyaxca
Auh ynocceeni mitohua Signus
quitoznequi yn quenami techtiqui
Techyacana
çan iuhqui in mitl
inic tlamina in canpa
yauh no iuhqui in çitlalin
in aquin quiyacana
intlanelocauh in ipampa
inic titenonotzan
ic titocenlalia in machoz
in iximachozque imatlactl omome S[ignu]s
inic xexliuh ticate in cexiuhlapohualli
[in] ipan motlalitiuh ylhuicatl yntonatiuh
caxtol[poh]ualli ome yhuan macuililhuitl yhuan
macuilli hora

in cenenamiquiliztica
yniuhotiq[ui]toque tlacpac
Auh yehuantinin
ARIES. TAURUS. GEMINIS. CANCER. LEO.
VIRGO. LIBRA. SCORPIO. SAGITARIUS.

CAPRICORNOS. AQUARIUS. PISCIS.
[Initial] Inic matlactlomome Signus
ypancate ynic chicuey ylhuicatl
yca ymixiptla yuh quiteytitia
in occenctlamtli
machiopan çiçitlaltin

The text continues:

in tlaco yetiuh
yntoca meçionales yhuan Septenchionales
yn ye mochi yn izquitetl
o[m]pohualli onchicuey machiyotl figuras
Ç Auh nican mitoz quezquitetl çitlallin
q[ui]pia ynrece gignos¹⁹³
yhuan quezquitetl ynrece machiyotl
yntoca [Septendrionales]
cenpohualli o[n]ce quezquitetl quipia Signus

in what manner all, now and everywhere
 is said by the Sign
 that is, how it governs us, it governs us
 it makes us go directly
 like an arrow
 thus it is shooting arrows
 that move like the stars
 who it governs
 [unclear]
 thus we consult someone
 we gather ourselves, it will be known
 let the twelve signs be known
 they are divided in one year count
 the sun goes and settles itself in the sky
 365 days and five hours [in de

Li : ‘ccc.lxv dias y un cuadrante como
 arriba diximos’]
 is one meeting
 as we have said it above
 and they
ARIES, TAURUS, GEMINIS, CANCER, LEO
VIRGO, LIBRA, SCORPIO, SAGITARI
US
CAPRICORNOS, AQUARIUS, PISCIS
 the twelve signs
 are in the eight sky
 their image makes someone see
 things in another way/other things
 stars [are] in the place of the sign

¹⁹² The term “48 signs/figures” refers to the scholarly heritage of Ptolemaeus’ *Almagest* and its description of the 48 constellations seen from the Northern Hemisphere. Those visible in the Southern Hemisphere were known to people living south from the equinox. The translator of Izcatqui remains loyal to the source text, not adding another 40 constellations seen from the Southern Hemisphere, which were often added to documents about cosmology in the sixteenth to eighteenth century.

¹⁹³ Read as ‘signos.’

¹⁹⁴ Read *ynrece* as ‘many’ or ‘old.’

intoca Merichionales
caxtoltetl occequin miyec tlamatli
niquitoznequi yn cenca monequi
*yuh ayamo co[...]**qui*
yno tlaçotzopelicayollo Auh ca za[n] yehu[at]

are named Meridionals
 there are fifteen or more
 I want to say it, it is very necessary
 [...]

nican niquitoz yn quenin tlapac omito [...]
 above [...]
Aoctle centlamatli quitoznequi
caza ye y[x]qch ynemiya[n]yn chan yn tonatiuh
*yac[...]**c[...]**to*
motlaliz ynizquitetl matlactl omome Sig[no]s
ynitlamiliz yxihuilitl Anoço ynitlacatliliz
yn tonatiuh ca oncan tla[n]tiuh

here, I will say it, as how it was said
 [...] nothing, that is
 all is the home of the sun
 [...]
 the twelve signs will all settle themselves
 [at] its end of the year or its birth
 the sun

yn o[n]can mocaltitiuh Tonatiuh

the sun is going to build itself a house
 there

yn ican matlatctli omome Signus
ça no yuh quitoca yhuehuetque
yn onpa tlacati hualquiça Tonatiuh
y yehuatl Signus techititiya
yn ical tonatiuh quinamiqui anoço
 [f. 38v] *Anoço ça no yuhqui inin Signus*

at some time [in one of] the twelve signs
 they follow them, the elders
 there is born, here emerges the sun
 the signs have revealed themselves to us
 they meet the sun's house, or
 or this sign is going to set something in
 order

yn ican tecpantoc cecenyacan Etss.[sic]

each governs us etc.

5.3.2.1 Domesticating the Zodiac signs

The terminology of the Zodiac signs derives from an occidental context; the names of the Zodiac signs themselves have their origin in the Latin language. Prior to the introduction of their terminology in the New World, these words were unfamiliar and thus it is of interest how they are rendered in Izcatqui. Several segments of ms 3523-2 describe the Zodiac signs in their respective sequence of twelve in a variety of characteristics (f.37v-46r; 76r-78r [second]; 97v-102r; 1010 [sic]-102 [second]). Figure 48 summarizes the names of the twelve signs, which for some also include Spanish terms (Aries is a *carnero* or ram; Sagittarius is referred to as *cahuallo* [*caballo*] horse or *centauro* [centaur]; Capricorn is a *cabra* or goat). It is unclear why only three are described in Spanish and the other nine are not. From the descriptions it is evident that the authors have searched for descriptions that describe the image of the Zodiac in question or provides the reader with an image that most closely resembles them. Thus, Aries is *oquichichcatl* or 'male sheep' and Leo, and as there are no lions in the Americas, is *ocelotl* or 'jaguar.'

Zodiac sign	Nahuatl	Spanish
Aries	<i>oquichichcatl</i> "male sheep"	<i>carnero</i> "ram"
Taurus	<i>quāquahê</i> "ox, cow, bull"	
Gemini	<i>omentin pipiltzitzintin</i> "two children, twins" (REV)	

Cancer	<i>tecuictli</i> “crab”	
Leo	<i>ōcēlōtl</i> “jaguar”	
Virgo	<i>ychpochtli</i> “young woman”	
Libra	<i>tlatamachihualōni</i> “scale” (composed form)	
Scorpius	<i>cōlōtl</i> “scorpion”	
Sagittarius	<i>maçātl</i> “deer”	<i>cahuallo, centauro</i> “horse”, “centaur”
Capricornius	<i>quāquauh tēntzon</i> “horned animal with beard”	<i>cabra</i> “goat”
Aquarius	<i>celacatl atetecac</i> “one person by the water”	
Pisces	<i>michintin</i> “fishes”	

Figure 48. Table with the names for the twelve Zodiac signs in Nahuatl, some in Spanish as well.

In a similar vein to a *reportorio*, each Zodiac sign presented in Izcatqui is explained according to the physical characteristics of the sign itself. What is interesting about the figure of the Virgo depicted in Izcatqui is that the drawing does not follow the classic tradition of depicting a ‘pure’ woman next a unicorn.



Figure 49. Virgo holding two flowers in a *reportorio* by Tornamira [Pamplona, 1585].



Figure 50. Virgo in Izcatqui [f. 41v].


Printed edition de Salaya [1554]	Drawn version Izcatqui
	
	
	
	
	
	
	



Figure 51. Table with Zodiac signs from De Salaya and Izcatqui.

This is all the more striking since this is exactly how Virgo is depicted in the reportorios by de Salaya [1554] and Ambrosio de Gante [1581], which appear to be the sources most likely used for Izcatqui. Instead, the Nahuatl document depicts Virgo as a woman holding either one or two flowers.¹⁹⁵

A representation of Virgo wearing a padded shoulder dress and holding one flower in each hand (as is drawn on folio 41v (see Figure 50) is, however, very similar to her representation on page 55 of the *reportorio* by Francisco Vicente de Tornamira (see Figure 49) [Pamplona, 1585]. The motivation for

¹⁹⁵ On folio 31v in Izcatqui, Virgo is depicted as an undressed woman holding one flower who appears to be standing in water. On folio 41v, she is depicted as a woman apparently dressed in a dress with padded shoulders and holding a flower in each hand (see the image in Figure 50). These images are different from yet another representation of Virgo in the Maya Chilam Balam of Kaua, in which the kneeling Virgin does not carry flowers but a branch. She also holds a star close to her heart. Bricker & Miram write that “[t]he star probably represents the Sun, whose house is the sign” (note 802 in 2002: 213; see also figure 55 on page 215 (page 90 of the Kaua)). Perhaps this star does not so much refer to the sun but to the light that comes from and which is the good heart of the Virgin. This is seen in images of the Most Immaculate Heart of Mary, in which Mary is portrayed with a shiny heart in her chest and often holding a branch of lilies in one hand.

representing Virgo as a young lady next to a unicorn derives from the classical period, not so much in mythology but in the natural historical writings of, for example, Plinius (Pliny). In the Medieval period, the representation of Virgo became an animal that could only be trapped and tamed by a young maiden that stood for the Virgin Mary; a relationship that represented chaste love and faithfulness within a marriage. These images are present in, for example, the *reportorios*. The Virgo image in Izcatqui probably refers to another image of Virgin Mary known from religious iconography.

5.3.3 Astrology in colonial Mexico (sixteenth through eighteenth century)

The earliest travellers to the new continent navigated by the relative positions of the stars, planets, sun and moon, and so benefitted enormously from the predictions of astrologers. This reliance on astrologers only continued further during the initial process of colonization by Cortés and his men. It is fair to say, therefore, that the calculations and predictions of astrologers were taken seriously into consideration. We have seen already that the Christian Church supported the practice of astrology from the thirteenth century onwards. This notion is supported by Weckmann's claim that "at this time [of early colonization] astrology and religion had no quarrel with one another [...] the first Dominicans to arrive in San Cristóbal in 1545 [were seen as] good omens, "as good Christian astrologers"" (Weckmann, 1992: 558).

Weckmann relates the introduction of European astrology to a culture that had similar practices of predicting the future. Following this line of thought, it is helpful to consider the Nahua calendar system, which was composed of two cycles: a 260-day cycle existing of twenty periods of thirteen days each (*tonalpohualli*) and a 365-day cycle existing of eighteen periods of twenty days, plus five unlucky days to close each cycle (*xiuhpohualli*). The days of the *tonalpohualli* were recorded in a *tonalamatl* ("book of days"), and this pictorial book recorded its 260 days and the different deities who exerted their influence on them. These pre-colonial documents had a ritual and prophetic character for the upcoming *tonalpohualli*. because the document functioned as a manual – most notably in the form of a mnemonic device. This manual, then, would have aided its priestly authors to undertake the ceremonial activities that had to be carried out on specific days of the year. Priests consulting such a pictorial work interpreted the images related to the days and determined whether a day would be lucky or unlucky. Furthermore, priests would consider to what extent an individual's actions determined one's or another's fate on a particular day (Quiñones Keber, 1995; Siarkiewicz, 1995).

In her work on the sixteenth-century codex Telleriano-Remensis, Eloise Quiñones Keber explains that "the prognostications of the *tonalamatl* governed every aspect of human endeavour at every level of Aztec society, sacred and secular, public and private, from birth to death, from commoners to rulers [...]. A diviner might be asked to select a propitious day to cure an illness or confess one's sins [...]." (Quiñones Keber, 1995: 154). She also explains, quoting Diego Durán, how the *tonalamatl* served to help regulate agricultural activities such as sowing, cultivating, and harvesting, and that it even had an impact on the activities of bathing and on the consumption of certain foods. Referring to the colonial period, Quiñones Keber explains: "the survival of the *tonalamatl* into the postconquest period is a remarkable phenomenon considering its esoteric nature and the fact that its connection with divinatory rituals marked it and its possessor as a target of suspicion by Christian missionaries and ecclesiastical authorities" (*ibid.*: 153). She continues by stating that the cyclical perception of time by Nahuas was likely to be regarded with curiosity by Spaniards as the result of their more linear perception of time, and thus "the eventual disappearance of the *tonalamatl* in the process of Christianization was [...] ensured" (*ibid.*). Interestingly, Franciscan missionary Motolinia considered the *tonalamatl* to be an ancient and noteworthy calendar and compared its images to the Zodiac signs and the planets found in the European calendar (*ibid.*). Although the *tonalamatl*, unlike the *reportorio*, was not related to the stars and heavenly bodies, it was also a handbook with regulations for diverse activities.

Historical sources that tell us observing the sky was a common occupation of the Nahua nobility in pre-colonial times. Certain celestial observations such as those of comets and eclipses would convey

a feeling of unease, as these were omens of terrible events – at least according to Spanish authors such as Bernardino de Sahagún (Aveni, 1980). As was pointed out by Anthony F. Aveni in his work *Skywatchers of Ancient Mexico*, however, interpreting the meanings of celestial events is not unproblematic. According to Aveni, the problem in “identifying the celestial percepts of vanished cultures is that we often make too many assumptions about what those people must have seen” (1980: 30). The Western zodiac represents a context-sensitive segmentation into 12 constellations over a narrow band across the ecliptic, and Aveni discusses several sources and tries to determine whether or not non-Western depictions of constellations were similar to the European zodiacal constellations. By the time Aveni published his book, the arguments in favour of a Mesoamerican zodiac comparable to the European model are so limited that they did not firmly point to such a perceived concept. A closer look at this comparison remains an open subject for future studies.

There has been a lot of debate amongst European scholars on the American continent about the effects of the celestial bodies on the appearance, characteristics, and health of the ‘Indian.’ This debate is carefully described in an excellent paper by Jorge Cañizares Esguerra (1999): *New World, New Stars: Patriotic Astrology and the Invention of Indian and Creole Bodies in Colonial Spanish America, 1600-1650*. The article discusses how the European theoretical heritage, brought by colonists in the shape of astrology and Hippocratic physiology, determined a “scientific racism that claimed there were innate bodily and mental differences separating peoples from one another” (*ibid.*: 35).

In the last chapter we already encountered references to the belief, common in medieval times, that every individual carries four “humors” – blood, phlegm, and yellow and black bile – which determines one’s physical appearance and health. An imbalance due to excess of one of the humors was to be repaired by extracting some of that particular humor. In accordance with European astrology, stars and the relative positions of planets were taken to influence the humor ratio, and therefore had an impact on the health and “nature” of Europeans, Native Americans, and Creoles living on the continent. These “natures” were taken to be responsible for certain characteristics – such as intelligence – and also for the ways in which the body was susceptible to epidemics.

To avoid the conclusion that *everyone* on the continent – that is, both Europeans and Native Americans alike – would be influenced in the same manner by the celestial bodies, a new theory had to be devised. Thus, Spanish physician and long-time resident in the Indies, Juan de Cárdenas, “authored a book [...] [for which] it could be argued it was the first modern treatise on racial physiology” (*ibid.*: 60). He explains at great length how complexions differentiate Creoles from natives in multiple chapters of his *Problemas y secretos maravillosos de las Indias* (Cárdenas, 1988). Cárdenas focussed in particular on the distinction between “natural” and “accidental” complexions. Natural complexions were those characteristics inherent to anyone native to the continent and the accidental complexions were those characteristics which were caused by the environment due to a build-up of extra phlegm. Cárdenas argued that Creoles took on an accidental complexion in the American continent and, as a result, developed a naturally sanguine and choleric temperament – “la complexión más alabada y aprobada” – the best temperament anyone could have (*ibid.*: 210). The environment and heavenly bodies, however, could not change the natural complexion, so Cárdenas answered the question about whether or not colonists could change into “Indios” in the negative (*ibid.*: 215). Cárdenas’ theory furthered the idea that European origin was preferable. The theory of natural and accidental complexions would linger on at least until the seventeenth century, during which time several authors turned to Cárdenas’ writings for support of their own ideas (cf. Enrico Martínez and Franciscan friar Agustín de Vetancurt in his *Teatro Mexicano* [1696] (Cañizares Esguerra, 1999; Weckmann, 1992)).

The practice of and theorizing about astrology was very much present in scholarly discourse in the years following the Spanish arrival in Mesoamerica. Astrology, however, was not appreciated by the Spanish Inquisition and its Holy Office. This Spanish institution was formally established in the New World in 1571, but inquisitorial acts started early, after the arrival of the first Franciscan bishop Juan de

Zumárraga in 1528 (Moreno de los Arcos, 1991: 29). The Holy office was faced with the task of subduing native religious acts in favour of Christianity. People native to New Spain as well as those of European descent were deterred from practicing anything other than the Catholic faith (introduction Perry & Cruz, 1991; Moreno de los Arcos, 1991). At least seventeen individuals were tried in the period from 1582-1654 “for practicing astrology or for having books on the subject in their libraries” (Weckmann, 1992: 561). In direct contrast to the agenda of such prosecutions, the University of Mexico City – established on September 21st, 1551 – had an official chair of astrology and mathematics from some time in the first half of the seventeenth century onwards (Silva Herzog 1974; Cañizares Esguerra 1999). The first holder of that chair – Diego Rodríguez – was being kept under close watch by the Inquisition, and his membership of Christian associations was no doubt influenced by his witnessing of several of his peers being tried by the Inquisition and by him not wanting to undergo the same fate (Cañizares Esguerra, 1999; Weckmann, 1992).

Two of the most interesting questions in relation to Izcatqui are (i) why was it created and (ii) why was it read? And one can ask a further, supplementary question: what was the attraction of the *reportorio* at large and astrology in particular for both the makers of such a manuscript and for its readers? These questions are not only relevant for the study of Izcatqui, but also for the study of translated *reportorios* in other indigenous languages that we know of. My argument now is that part of that explanation for all these questions lies in the divinatory character of astrology.

5.3.4 The art of divination - Attraction of astrology to an indigenous readership

“This pestiferous superstition stands so [firmly] introduced among these Indians that there are many who live from it alone and support themselves as with a profession, to whom the needy ones come with their doubts and difficulties as to an oracle, thinking to find in them a remedy for their travails and a resolution of their doubts.”
(Ruíz de Alarcon, 1984: 142)

The description above – taken from Mexican Hernando Ruíz de Alarcon’s 1629 work, *Tratado de las supersticiones y costumbres gentílicas que oy viuen entre los indios naturales desta Nueva España* – is part of his fifth treatise ‘About the seers and superstitions of the Indians as regards divination’ (translation by Andrews and Hassig, 1984: 141). This treatise is part of his documentation of several religious traditions and medicinal practices and is “one of the most important sources of early colonial Mexico [..]” (Andrews & Hassig, 1984: xvii). The quote above filters out two factors related to divination in colonial Mexico. First, divinatory practices were more often called superstitious by chroniclers in the past, because they were related to diverse ‘barbarian’ and ‘heathen’ cultures that needed to be re-educated to meet ‘European standards.’ Second, the quote above, although from a distrusting point of view, strikes at the core of divinatory practices in general: whenever doubts or troubles arise concerning a specific decision to be made that could influence near future events, consulting a diviner creates a state of calmness, confidence, and relief that soothes the worrisome thoughts surrounding the taking of such a decision (Zeitlyn, 2001: 233).

The word ‘divination’ is derived from the Latin verb *divinare* “to foretell, prophesy, forebode, divine the future” (Tedlock, 2001: 190). Roman politician and philosopher Cicero wrote in his *De Divinatione* (1st c. BC) that the Romans named the ‘most extraordinary gift’ [i.e. divination] after a word derived from *divi* “gods” (1923 [44 B.C], Book I: 223). Divination, according to the Romans, was an ‘inductive’ type of divination, so there was no forecasting by a diviner able to receive insights on future events. Moreover, the presence or absence of natural phenomena were taken as indications of the gods approving or disapproving of an act that was even, on occasion, yet to be performed (Tedlock, 2001: 190). In her work from 1996, *Magic and Divination in Ancient Palestine and Syria*, Ann Jeffers states

that “[d]ivination is the art of reading signs in which the future lies hidden” (Jeffers, 1996: 1). The ultimate goal of foretelling the future is, in the words of Sarah Iles Johnston, ‘straightforward’: it is the goal of collecting knowledge that would not have been known without divining (2008: 3). However, situations in which divinatory knowledge is sought after are not solely related to the future:

“Divination has been consistently represented as a stepping-stone between pondering a problem and acting to resolve it, whether by ritual action or otherwise. It is a means of clarifying thought, of answering recondite questions.” (Zeitlyn, 2001: 225)

“Divination is a broader inquiry into life circumstances and meanings, [and related to healing processes] of which diagnosis of the immediate causes of malady is a part. [...] divination is putatively concerned with acquiring information used in decision making.” (Winkelman & Peek, 2004: 3, 4)

Stephen Karcher has written extensively on “I Ching divination” in China, and he considers the basis of divination to be a combination of two groups of meanings (1998: 215). The first is the ability to use an insight based on magic to see things that are blurred by irrational or supernatural means. The second meaning entails that the insight gained through divination is somehow linked to a god that offers a particular symbol to the diviner interacting with that deity (*ibid.*). Karcher refers to Carl Jung’s writings on human interaction with consciously imagined symbols termed the “Transcendent Function” (1998: 216,220). According to Jung’s thesis, there is a human tendency to attach meanings to objects that are not visible to the eye and that therefore go beyond their sheer materiality. The interaction between humans and “spiritual forces” is said to be made visible by the symbols that a diviner uses: a form of divinatory language (Karcher, 1998: 216). Facilitating the emergence and development of language involves the coming together of several components in the process of divining. This ‘synchronicity’ refers to the unlikely uniting of events that occurred in different time periods (past and future, for example). It is in this state of being that spirits decide which symbol(s) to lay before the diviner – spirits occasionally taken to be demons, once seen as mediators, but with the proclamation of monotheism now also taken to be fallen angels roaming with the Devil (Karcher, 1998: 221).

According to Jeffers, divination must be understood within a cosmological context, since it is this context that creates and endows meaning to the signs that are being read (1996: 2). With this in mind, defining divination would not be complete relating it solely to foretelling the future. Divinations are dynamic traditions embedded in a dynamic creation of links between the past, present, and the near future in which symbols have acquired ample validity to be used. Therefore, divining is not limited to foreseeing the future only, because the process of divining is just as important as its outcome. Thus, symbols selected in the past combine with a present situation that calls for an intervention.

The historical process leading up to selected objects that were found appropriate to use during the act of divining as well as the moment(s) in which they were endowed with their new task is hard to reconstruct. It is, however, often possible to link the items to, for example, cosmogonies, histories, or to important subsistence products for any given society. For instance, the pattern of fallen maize kernels – one of three primary dietary foodstuffs in Mesoamerica - is read by the diviners in order to be of help for specific questions (cf. Rojas, 2014). For the Montagnais-Naskapi (native to East-Canada), the shoulder blade of a caribou is held in fire and the following cracks and colorations lead a group of hunters to the area where they need to search for this game, which is vital for obtaining enough nutrition in the harsh area (Moore, 1957: 59).

There is an abundant amount of information from pre-colonial, historical, and contemporary sources on indigenous divination. Pre-colonial sources have challenged scholars with their enigmatic

character, but cumulative and ongoing research has led to a better understanding of these impressive sources. What is more, diachronic studies have emphasized that there is a strong cultural heritage stretching from pre-colonial times to present-day Mesoamerica. The Mesoamerican calendar system of 18 periods of 20 days facilitated a system of 20 periods of 13 days, or *trecenas*. This 260-day calendar was important for prognostications and guidance for a number of occasions. Their sequences were recorded and fortunately some – although relatively few – have survived the conquest. These *tonalamatl* or "books of days" that are still with us belong to the Teomoxtlí "Books of Wisdom" or Borgia group of codices, the main examples of which are codex Yoalli Ehecatl (codex Borgia), codex Tonalpouhqui (codex Vaticanus B), codex Tlamanalli (codex Cospi), codex Tezcatlipoca (codex Fejérváry-Mayer), codex Mictlan (codex Laud), and codex Cihuacoatl (codex Borbonicus).

As a worldwide phenomenon, there are general underlying motivations for the existence of an array of divinatory types. In an edited volume, *Divination and Healing – Potent Vision*, Winkelman argues for “a reconceptualization of divination from a false or mistaken epistemology to cultural systems for decision-making and therapeutic processes.” (Winkelman & Peek eds. 2004: vii). There are examples of how new divinatory types have been incorporated into an existing corpus. In Peru, the use of tarot-like cards called *naipes* was documented in the sixties of the twentieth century (Dobkin, 1969). This form of divination that was present in Europe in the sixteenth century, and that travelled along with Spanish settlers to Peru and “[...] became syncretized into Peruvian folk healing practices” (*ibid.*: 134). Similar processes have occurred in New Spain, of which the results in the present are also still visible. Araceli Rojas describes the heritage of a dying knowledge preserved with the memory a selective group of women of Chichicaxtepec in the Mixe region in Oaxaca, Mexico (2014). These women take on an impressive variety of roles in order to take care of the preoccupations of individuals or families and the community at large. They are the healers and they divine through their reading of maize kernels through which they communicate with the essence of Mother Earth. These women are the ones that truly understand the complexities of the indigenous calendar system and its consultation. That particular calendar does not exist in a written form (not anymore at least), so these women have an incredible memory of what they were taught by their parents and grandparents (Rojas, 2014: 137-139). Some, however, make use of the Mexican almanac *Calendario del más antiguo Galván* (*ibid.*: 137). This almanac has been published yearly in Mexico from the mid nineteenth century onwards. And, as a result, this almanac can be viewed as part of the legacy of the Spanish *reportorio* genre. Its content is calendrical in nature, combining the liturgical calendar with astronomical features and weather prognostications (*ibid.*: 137). According to Rojas:

“Interesantemente, este libro de contenido religioso, similar a una guía de celebraciones católicas, fiestas anuales e información relevante para el creyente, es una especie de sustituto de los códices pictográficos del Grupo Borgia, cuya temática también es ritual, un grupo de manuales para la labor propia de los antiguos sabios sacerdotes.”
(2014: 137)

Here, we find the Gregorian calendar that is used by the *sabios* of a community in order to count the days within the indigenous calendar system. After consultation, prognostications and advice are given, that are presented within the indigenous symbolic framework. Just as the reader of Fonds Mexicain 381 explicitly states that he will pick up the *reportorio* and read the fates of those in need, the women of Chichicaxtepec use the almanac as they see fit.

5.4 Concluding remarks

The Nahuatl manuscript of interest for this study was composed in the mid-eighteenth century. Its content is inspired by the genre of the Spanish *reportorio*, however, the content also illustrates that the reader of ms 3523-2 was expected to be familiar with a sixteenth century worldview. There are a number of arguments that point to this conclusion.

First, although the religious introduction of Izcatqui mentions Pope Gregory XIII – who issued our current time reckoning – it technically represents the Julian calendar. This is likely because the *tlacuiloque* translated (either as a primary or secondary source) the almanac by Sancho de Salaya from 1542. Life on a daily basis with the Julian or the Gregorian calendar would be the same; there were still seven weekdays, 12 months, and 52 weeks in a year. Izcatqui does not describe the actual year of 1582 in which 10 days were omitted from that year. Therefore, it probably was not the aim for the *tlacuiloque* to be explicit about the exact calendar system in their text.

Secondly, the cosmography represented in the manuscript is that of Ptolemy. Earth is in the center, and the moon, the sun, and the planets Mars, Jupiter, Venus, and Mercury were believed to circle around earth in their own separate spheres. The stars and the Zodiac signs occupy the eighth sphere and the outermost sphere was the Prime Mover, setting everything in motion. This geocentric model was, of course, disputed by Galileo Galileo in the first half of the seventeenth century (Findlen, 2012: 205), so only a century or so later the Ptolemaic model was no longer the authority on how the universe was to be conceived. Yet, in Izcatqui, the discussions that had taken place in the preceding century up to its moment of production in the mid-eighteenth century are not reflected in the Nahuatl text whatsoever.

Thirdly, the *tlacuiloque* were interested in composing a Nahuatl translation from what a sixteenth century *reportorio* had to offer. Astrology in Izcatqui is not disputed; it is not discussed in any way as something that might be put in doubt. Rather, it is presented to the reader in terms of historical developments that has led to a vision about the practice as it was theorized and presented to Spanish readers two centuries prior.

The *tlacuiloque*, in their efforts to produce a text for an indigenous readership, took on the task of both interpreters and translators. With great care, they tried to stay true to the original text(s) while explaining crucial terms according to an indigenous cultural and ecological framework. This is reflected in, for example, the explanations of the periods of time in the Western calendar. Furthermore, the new concept of the week employed by the *tlacuiloque* is the equivalent of *chiconilhuitl* or 'seven days' in Nahuatl; and the Zodiac sign Leo is an *ocelotl* or jaguar since this animal most closely resembles a lion (an animal that was not present in Europe either). These are just a few subtle examples, but they do demonstrate the viability of the text and the aim to produce something that would explain a worldview in comprehensible terms.

In the following chapter I will continue my exploration of the content of Izcatqui. A substantial amount of folios deals with medicinal practices and agriculture. I will analyze their translations, possible source texts and include them in order to answer to overall question about to how the scribes tried to convey the message to the reader.

Chapter Six

The Cure and Nature: Zodiac Man, *De Materia Medica* and indigenous ecology

World cultural history is infused with an astonishing level of knowledge of local ecology, which is reflected in the large variety of medical therapies and agricultural products that different cultures have created and put to use. This chapter examines the folios of Izcatqui that contain information on both medicine and agriculture. The aim here is to provide a full range of sources that may have been consulted in the composition of those folios of Izcatqui. By the time ms 3523-2 took on its current form, a variety of Old World theories on the physiology of the human body – including theories about the causes of illness and the means through which to cure them – had found their way to the New World. These were then incorporated into theories developed locally. It is pertinent to ask: where does Izcatqui fit into this intercultural framework? In addition, we must consider how the *tlacuiloque* who wrote Izcatqui translated the references to agriculture they found in both Old and New World sources. And we must ask whether or not these sources were altered in any way so as to be fitted to a local Mesoamerican context. Finally, it is important to determine to what extent the information provided by the fragments about medicine and agriculture helps us to draw conclusions about the use of the manuscript. Could Izcatqui have been used as a practical guide, much as the *reportorio* would have been?

6.1 Practices of curing in *Izcatqui*

In *Izcatqui*, a total of 11 folios (58r-65r; 91r-96r) contain fragments that explain and interpret the medical discourse of the Spanish elite who traveled to the New World. To a great extent, medicine in sixteenth century Spain (as well as in the main part of what is now Europe) was rooted in ancient Greek philosophy. This philosophy had been maintained during the medieval period and did not change drastically until the seventeenth century with the development of the natural sciences (Siraisi, 1990: ix-x). The first of these explanations and interpretations is given as follows:

[f.58r] ☉ <i>nicā tiquitaz</i>	here you will see
<i>in totechnematia</i>	you make us know it
<i>yn yquenicā titic</i>	how it is inside us ¹⁹⁶
<i>ca ytechca chicome planeta</i>	it was with the seven planets
<i>yhuan matlactli omome Machiyotl</i>	and the twelve signs

The main theory being advanced, then, was centered around the belief that illnesses and cures were inevitably related to the twelve Zodiac signs and to the Sun, Moon, and the planets Mercury, Mars, Jupiter, Venus, and Saturn.

¹⁹⁶ Problematic translation where *titic* could refer to ‘inside us’ (personal communication Justyna Olko, 2019).

6.1.1 Zodiac Man

Folio 59v follows up on this introduction with a wonderful drawing of what is unquestionably a male human figure (complete with beard and chest hair) surrounded by different elements in image and iconography (see Figure 52).

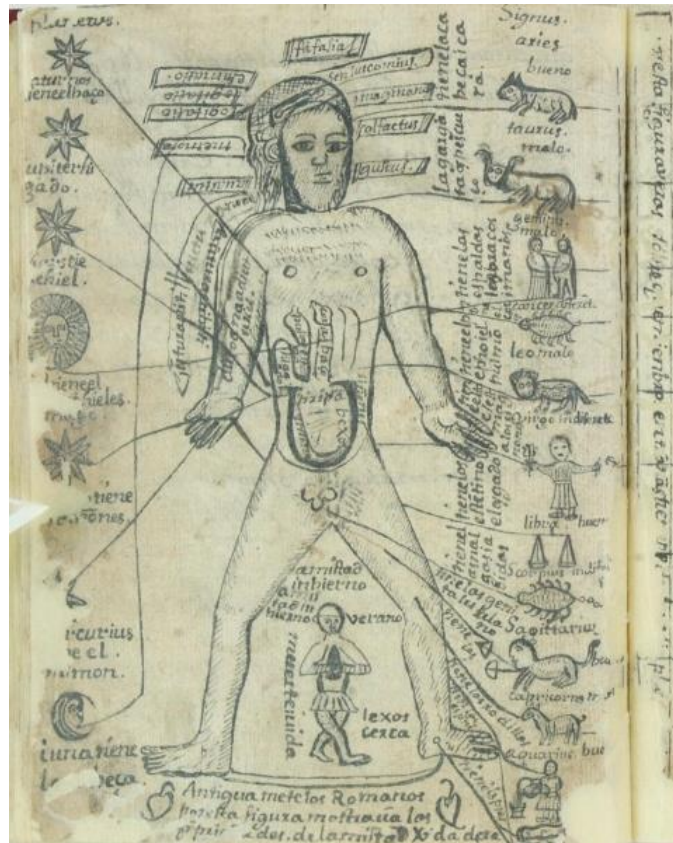


Figure 52. Zodiac Man, ms 3523-2, folio 58v

Nine text boxes appear around the principle figure's head, which catalogue the senses related to our heads. Clockwise they are: *fāfasia* [fantasia], *sensus comius*, *imaginario*, *solfactus*, *gustus*, *auditus*, *memoria*, *logitatio*, *estimation*. These senses are further explained in text on folio 60v:

☉ *Izcatqui yn izquitlamantli*
yn itechca yn totzonteco
Tlacaquilistli toCuexcochtla[n] catqui

[t]alnamiquilistli tocuexcochteuh
ytech catqui
neyolnonotzaliztli achito canahuacā
catq[ui] nematlistli
tocanahuacā catqui
nequatlatzallistli ahaquetzaliztli
toquanepantla catqui
Tocennematia tixquach omcatqui
Toneyximachilia huel ōca tixcotoyacac
yacnotixquac onca catqui
Totlanecuilis toyacac oncatqui

here are all things
that go with our head
the ability to hear, the back of our head
[neck] is
thought, our neck
is with
a bit of imagination, the temple
is with knowledge
our temple is
nodding the head
the middle of our head is
our knowledge, at the front there is
our memory, there our eye, our nostril
at the front there is
our sense of smell, is there in our nose

In the drawing, the artist incorporated some information about human anatomy by naming some organs and drawing them in the abdomen: *higado* (liver), *pulmón* (lung), *estomago* (stomach), *cora[zon]*¹⁹⁷ (heart), *baco* (spleen), *riñones* (to the left and right: kidneys). Two other organs that are represented in the abdomen are the *bexos* (vejiga, bladder) and the *tixipa* (or *tripa*, intestines).

In between the feet of the man stands another figure. He seems to have been dressed as a knight, in tights and a short skirt. He holds an object in the shape of a cone in his hands. Surrounding this figure's head it says *amistad invierno* [invierno] (twice: friendship, winter) and *verano* (summer). To the right of the figure it reads *muerteiuida* [muerte y vida] (life and death). To its left we can read *lexos cerca* [lejos, cerca], close and nearby. On the bottom of the folio, below both figures it says: *Antiguame[n]te los Romanos por esta figura mostrauā las propiedades. de la amistad xrdadera.*

The main character is flanked by several easily recognizable elements. Even though the left margin of folio 59v is partly damaged, its drawings and text can be reconstructed to a large extent. To the male figure's left seven *planetas* have been drawn, as also attested to in the text written above their illustrations. From top to bottom appear Saturn, Jupiter, Mars, Sun, Venus, Mercury, and the Moon. To the main figure's right the twelve zodiac signs are depicted, indicated by the word *signos*. The signs are arranged from top to bottom and start with Aries at the top and end with Pisces at the bottom. Both celestial bodies and Zodiac signs are connected to the figure's body and the accompanying text explains to which part of the body the connection obtains. For the planets, that means that Saturn is linked to the spleen; Jupiter to the liver; Mars to the gall; Sun to the stomach; Venus to the kidneys; Mercury to the lungs; and the Moon to the head. The Zodiac signs are linked as follows, from top to bottom: Aries in linked to the head, Taurus to the throat, Gemini to the back and arms, Cancer to the heart, Leo to the chest and lungs, Virgo to the stomach and kidneys, Libra to the intestines and liver, Scorpio to the bottom, and Sagittarius to the genitals. The *tlacuilo* forgot to write the body part to which Capricorn is connected, although a line has been drawn from Capricorn towards the upper leg. Aquarius is linked to the knees and Pisces to the feet. In addition, all Zodiac signs are designated as either *bueno* (good), *malo* (bad) or *indiferente* (indifferent).

On the consecutive folio 59r, efforts have been made to include a sentence in Spanish framed as if belonging to folio 59v and its image. It is damaged to a large extent, but we do have an example of a similar drawing in the reportorio by Sancho de Salaya (1542). Therefore, we can infer that the text originally said: *Por esta figura veras sobre que miembros y entrañas tienen poder los siete planetas, los doze signos, debaxo de la qual esta la figura de la verdadera amistad.*

Similar illustrations of Zodiac Man appear in abundance in medieval manuscripts from Europe, and they similarly portray the twelve Zodiac signs in relation to different body parts and organs, starting with Aries at the head and ending with Pisces at the feet (see Figure 53).

¹⁹⁷ In the abdomen of the male figure, we read 'cora.' I assume this is an abbreviation of 'corazon' or 'heart' in Spanish.

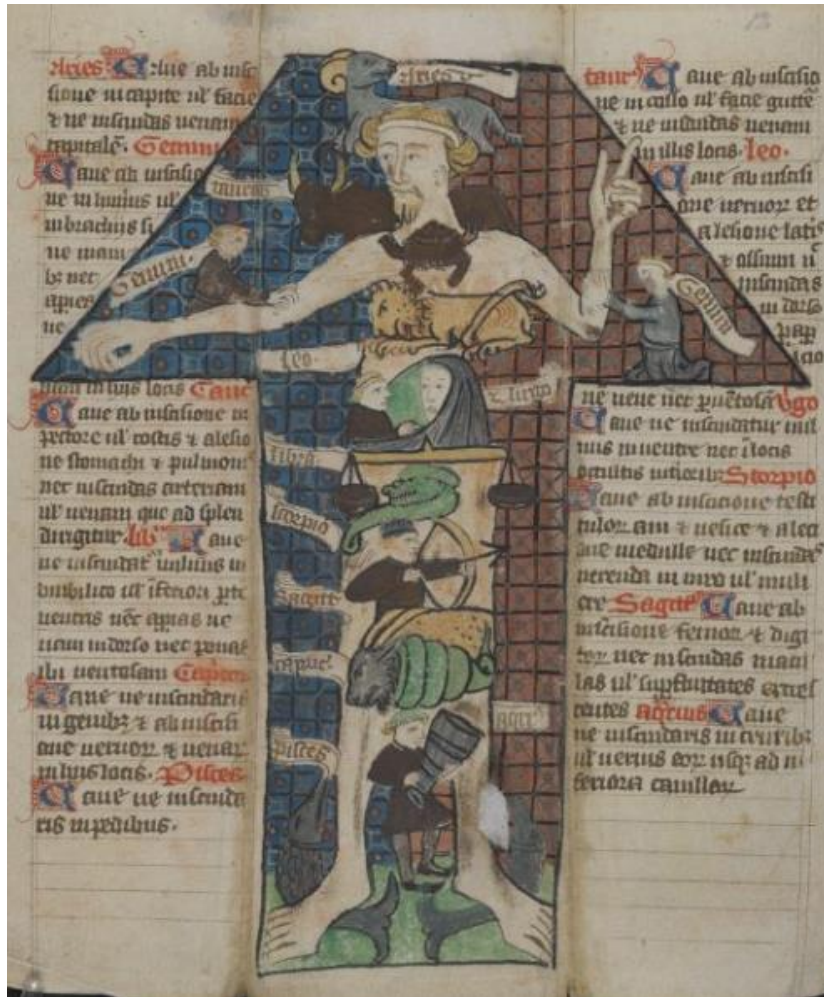


Figure 53. Zodiac Man diagram, from a folding almanac, England, 1st half 15th century, Sloane MS 2250, f. 12r. Available online, British Library.

The claim is that after the sun has set in any one of the constellations, that particular Zodiac sign will rule over its related body part and consequently its health. Thus, the main planets and the sun and moon were taken to govern the internal balance between the “primary qualities of heat, cold, moistness and dryness [...] and the power of the planets was strengthened or weakened according to their place in the different Zodiac signs” (Whitfield, 2001: 116).

In order to understand the link between the celestial bodies and health and cures for diverse illnesses, we must return to medieval Hippocratic physiology. According to medieval theory, there are four humors: blood, phlegm, and yellow and black bile (each of them is assigned to be Cold or Hot, combined with either Dry or Moist). These four humors are present in every individual and determine one’s physical appearance and health. An imbalance of these humours – due to an excess of one of the humors or a lack of another – was to be remedied by extracting some of that particular humor; for instance, by bloodletting. In accordance with European astrology, stars and the relative positions of planets were of influence to the humor ratio (Cañizares Esguerra, 1999). Certain combinations of planets and Zodiac signs were considered to be dangerous and it was thought that it could be fatal to practice phlebotomy in particular periods. In this medical context, illustrations of Zodiac Man functioned as a mnemonic device, and were often consulted along with drawings of the so-called Vein Man to determine

whether or not bloodletting under diverse celestial circumstances would have a positive or negative outcome (see Whitfield, 2001)

The explanatory text for Zodiac Man starts on folio 59r and is located opposite to the drawing itself. This text is divided into twelve lines and each line explains which zodiac sign rules in which month and whether or not this rule is something to be considered good or bad. For each of the zodiac signs the text on folio 59r reads as follows:

[f. 59r] *quitosnequi yn imarço oquichchihcatl am qli.C*
it means [lit.: it wants to say:], March, the ram, is not good

quitosnequi yn iabril q.q.hue amo quali C
it means, April, the bull, is not good

qtusnequi yn imetzli mayo cocohuame qli. C
it means, the month May, twins. [is] good

qtosneq. yn imetzli Junio tecuictzitli amo qli C
it means, the month June, crab, is not good

qtosnequi metztli Julio tequani quali
it means, the month July, Lion/Tigre [lit.: eater of living beings], good

qtosneq. metztli: agosto ychpochtli amo q.li
it means, the month August, young maiden, not good

qtosneq. metztli: Septiembre pexo quali
it means, the month September scale, good

q.tosneq. metztli: octubre: colotl amo q'.li
it means, the month October, scorpion, not good

q.tosneq. metztli: vienbre tlacamaçatl q.li
it means, the month November man-deer, good

qtosneq. metztli: de diciembre.tetzon amoqli
it means, the month December, 'bearded (animal)' [i.e. goat capricorn]¹⁹⁸, not good

[q.]tosneq. metztli: enero atetecac qli_C
it means, the month January, water pourer, good

[q]tosnequi metztli febrero mixtin a[mo qualli]
it means, the month February, fish, [not good]

¹⁹⁸ Here, the *tlacuilo* decided to write a 'tetzon' which could be 'te(ntl) = lip' and 'tzon(tli) = hair,' forming the expression 'bearded (animal)' for goat. December is the month in which the Zodiac sign Capricorn appears. It is more common to find 'quaquauhtzontli' for 'animal with horns' (Karttunen, 1983: 57), but Molina lists tentzone = barvada persona and quaquauhtentzone for 'cabra'(goat), apparently as 'horned, bearded animal', so tentzon is simply a shortened form for cabra (goat).

The explanation of the drawing is continued on folio 60 and starts with an explanation of the influence each planet has over a certain body part or organ:

[f. 60v] ☉ <i>Yzcatqui planetas:</i>	here it is, the planets
☾ <i>luna tocpac ca yn techtotzōtecon</i>	the moon is above us, by our head
☿ <i>Centetl huei çitlali ytoca mercurius</i> <i>tochichicauh ytechcā pulmo</i>	the first great star named Mercury bile, it is with the lung
♀ <i>Occentel huey çitlalin ytoca venus</i> <i>ytechca tocuilaxillo hyo</i>	another great star named Venus it is with the back,
☼ <i>Sol tonatiuh toyollo ytechca</i> <i>yhuan tochichicauh</i> <i>no yh[uan] totlatlalil</i>	Sun, tonatiuh, is with our heart and the bile also with the stomach
♂ <i>Mars centetl huei çitlali ytoca Mars</i> <i>tochichicauh ytecha</i>	Mars, the one great star named Mars is with our bile
♃ <i>[O]ccentel huey çitlalin yntoca Jupiter</i> <i>yntechca teltapach</i>	another great star, named Jupiter is with the liver
♄ <i>[O]ccentel huey çitlalin ytoca Saturnus</i> <i>ytechca telxochiuh ytoca bazo</i>	another great star, named Saturn is with the fat of the liver, named the Spleen

The *tlacuilo* decided to translate the planets as “great stars.” The Sun is not just referenced by its Spanish word (*sol*), but also in Nahuatl (*tonatiuh*). The same method of representation lacks for the Moon; here we read only *luna* and not the Nahuatl word *metztli*. The Zodiac signs in relation to the male figure have been explained briefly on folio 59r, and this is repeated on folio 60r-61v, supplemented with additional information about the body parts to which they are connected:

[f. 60v]	
☉ <i>yzcatqui: matlactlomoma machiyotl: Signus</i> <i>yn ipan motlalia:tonatiuh yn çeçe xihuitl</i> <i>yn cece xiuhtica:</i>	Here it is: the 12 signs, <i>signus</i> here settles the sun, each year during the year
[f. 60r]	
♈ <i>Oquichichcatl: ytecha totzontecō:</i> <i>yhuan toxayac ca quali Amococolis</i>	the ram is with our head and our face, it is good, [there is] no illness
- <i>Quaquahue ytechca tocono</i> <i>toq[ue]chquauhyo Amo yectli cocolisço</i>	the bull is with our throat it is not good, it is full of illness
- <i>Cocohuame yn itoca geminis:</i> <i>ytechca ynōcā tocuilapan</i> <i>yhuan tacol yhuan toma</i> <i>amo quali cocolisço</i>	twins, called Gemini it is with our back, there and our shoulder, and our hand, it is not good, it is full of illness
♊ <i>Tecuiçitli telchiquiuh titech</i> <i>yhuan ytech tochichicauh xeliuhqui</i>	the crab is with our chest and it is with our bile, split up
- <i>Ocelotl ytechca totlatlalil</i> <i>yhuan tocuilaxilloyo</i> <i>amo qualli cocolisço</i>	Ocelot [lion] is with our stomach and our back it is not good, it is full of illness
- <i>Virgo tetzacatl</i> ¹⁹⁹ <i>yntechca yeltapach</i>	virgo, sterile [woman] is with the liver

¹⁹⁹ “esteril, que no tiene hijos” (Alonso de Molina, 1992 [1555]: 110)

<i>yhuan ytlaca ça xeliuhqui</i>	and the person is just divided
- <i>Tlatamachihualoni tometzquauhyo ytechca</i>	scale is with the strong leg
<i>[Amo crossed out] qualli</i>	it is good
<i>Amo cocolisço</i>	there is no sickness
- <i>Scorpius collotl ytecha ytotlacatca</i>	scorpio, scorpion is with [our body]
<i>ytotlacaxinacho²⁰⁰ xeliuhqui</i>	our [lineage divided]
- <i>Tlacamaçatl toquexil titech catqui</i>	man-deer is with our groin
<i>qualli Amo cocolisço</i>	it is good, there is no sickness
[f. 61v]	
- <i>Quaquauhtentzone ytechca totlāqua</i>	goat [bearded animal] is with our knee
<i>Amo qualli cocolisço</i>	it is not good, it is among illness
- <i>Ce Acuic anoço atetecac</i>	one tiny shrimp or water pourer
<i>totlanitzco cā q[ua]lli amo cocolisço</i>	our shin, it is good, there is no sickness
<i>Mimichtin Centoxocpal nepantla catqui</i>	fish, the sole of the foot, in the middle they are
<i>Auh ca ytechca toxipil xocoyouh xeliuhqui</i>	and it is with our feet, [fruit is divided]

6.1.1.1 Cultural translation of Zodiac Man in Vaticanus A

In their study on codex Vaticanus B, Anders and Jansen discuss the illustrations of Zodiac Man from ms 3523-2 on folio 59v, as well as a human figure surrounded by the 20 day signs in Vaticanus A (Figure (discussed in more detail in their work on Vaticanus A) (1993: 93-106; 1996: 245-7). Their claim is that the Zodiac Man from ms 3523-2 and the illustration from codex Vaticanus A, which portrays a man that spreads his arms and legs, are both depicted only in style in a fashion similar to the medieval Zodiac Man. The figure from Vaticanus A is surrounded by the symbols for the twenty day signs of the Mesoamerican 260-day calendar and each of them is related to a different part of the body. The twenty day signs are spread in almost perfect symmetry, covering single body parts on the left and right side. This symmetry lacks for the Zodiac Man in ms 3523-2 and some of the zodiac signs are related to multiple body parts or organs in this figure instead of just one at a time. The associated signs do not correspond for both figures either, because the Zodiac signs obviously differ from those of the day signs. Consequently, Anders and Jansen argue that the association of both Zodiac sign Leo and day sign Jaguar with the intestines is merely a coincidence, and that the depictions only share the common idea of a centralized human figure surrounded by signs. The figure in Vaticanus A is not related to any astral influences, in contrast to the European Zodiac Man.

There does exist a Mesoamerican tradition in which the twenty day signs are related to the skin of a deer (as a symbol of nature) and their locations symbolize specific characteristic traits passed on to a child born on a specific day (Anders & Jansen, 1993: 96-7).

Both European and Mesoamerican cultures have a familiarity to relate symbols of time to parts of a physical body of either human or animal nature. This similarity is likely one of the reasons for the presence of a human figure surrounded by the twenty day signs in the early colonial Vaticanus A. It combines the tradition of the deer skin and the twenty days signs with the European tradition of the human figure related to astral bodies (Anders & Jansen, 1996: 245). According to the original colonial explanatory text below, the representation was used as a guide in the selection of a proper method to cure an illness. This method then, had to take into the account specific characteristics of the day sign that was related to the part of the body in pain. Although a link to astral influences is missing in the illustration from the early colonial codex, it is apparent that the genre of the Spanish *reportorio* was known in Mexico by at least the mid-sixteenth century. And it is also apparent that it was discussed and

²⁰⁰ Literally “the seed of our body.”

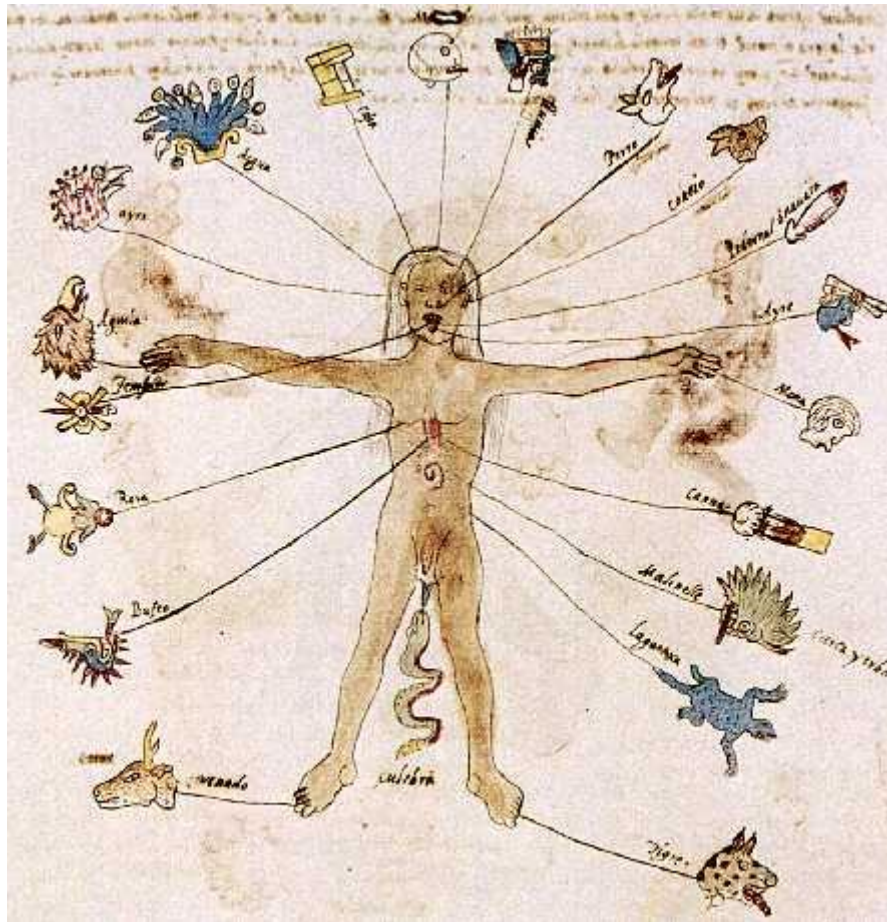


Figure 54. Image of a human figure surrounded by twenty day signs. Codex Vaticanus A, f. 54r.

that some aspects of it were incorporated into known practices, such as is expressed in Vaticanus A.

6.1.2 Vein Men

It is unclear how to properly translate a word that is used in Izcatqui frequently: *tlalhuatl*. According to Karttunen, this should be translated as “tendon” or the tissue that connects muscles to its adjacent bone (1983: 274). The word for “blood vessel” *tlalhuayō*, would seem to be more appropriate in the context of Vein Men (*ibid.*: 274). This Nahuatl word however appears only once (1983: 274). The online dictionary of Nahuatl (GDN) recognizes neither *tlalhuayō* nor *tlalhuatl* as “blood vessel”, just as “nerve.” One explanation for this is that the meaning of this word has changed over the years to incorporate the word “blood vessel.” Nonetheless, even though a different word was selected, the authors were perfectly aware of the exact anatomical item they were dealing with. To see that this is the case, consider the following fragment:

[f. 61r]

*Izcatqui yn izquitlamatli
yotlalhuayo ynicmiximatiz
yn ipā pa ycani nezohuazque*

Here are all the things
of our blood vessel, that we thus may
know
where to bleed oneself

[f. 61r: image of Vein Man]

Imtlalhuatl tixqua nepantla ycac
ycac yehuatl yn iquac techcocohua totzonteco
¶ *Auh yn tocanahuaca yhuan yn ocan*
tixcalco mani ytlalhuatl
ca yehuatl ynic [f.62v] *titlachiya ca yehuatl*

the nerve in the front, in the middle
it stands when the head sickens us
and the temple, with
our eyelid, flat is the nerve
it is in order to see it

¶ *In tlalhuatl ometotexipal*
titech nenecoc mamani
yn tocā Reoma

the nerve of our two lips
which can be found on both sides
that is named *Reoma* (rheumatism?)

¶ *Inic centlalhuatl totechal*
yn techicac yehuatl yn iq[ua]c
mococohua ytixtelolo yhuan
yquac pozahua yn toxayac
yhuan [i]n iq[ua]c mococohua yn tocamachal

the first nerve
is with us when
the eye is sick and
then our face is swollen
when our mandible is sick

¶ *Intlalhuatl ytoaca circular*
yehuatl yn iquac techcocohua tochichcauh
ynhuan tomatzōtzōpas²⁰¹ yhuan teltapach

the nerve named circular
when our bile sickens us
needle and liver

¶ *ye ytlalhuatl totlaquaticpac*
ycac yehuatl yn itechcocohua tocuilaxilloyo
topitzahuaca

[already] the nerve that is on top of
the sacrum, sickens us
our belt

¶ *In tlalhuatl oncan toquexilco ycac*
yehuatl ytechcocohua yn totlanitzco

the nerve which is in our groin
hurts our leg

¶ *In tlalhuatl onca tohuey ycxipil titech*
yehuatl ynepātla ycac yehuatl yn iq[ua]c
techcocohua toquexilco yhuan tociacac

the nerve there in our big toe of our foot
in the middle
hurts our groin and our armpit

[¶] *In tlalhuatl oncā toyacaticpac ycac yehuatl*
ynic cencā tichoca

the nerve over our nose
makes us sniff/cry

[¶] *Ome tlalhuatl oncā tonenepil titech ycac*
yn itzintlan tonenepil yn toca agitides
yehuatl yn techcocohua y[n] tocuilapā

two nerves that are in our tongue
under our tongue are named *agitides*
our spine, back is hurting us

[etc.]

[f. 63v]

¶ *Ce tlalhuatl oncā tomapilhuey nepātla*
yhuan tocxipil nepantla ycac yehuatl

one nerve in the middle of our great finger
and in the middle of the big toe of our foot

²⁰¹ *tzotzopaztli*: “needle, thin knife.”

<i>yn iquac otztli otztiya nima mitzminas</i>	when a pregnant lady becomes pregnant will bleed herself
<i>anoço mixihui yhuan ytotlacatca</i>	or/perhaps to give birth and our womb
[f.63r second image of Vein Man]	
<i>Auh yn occetlaluatl</i>	and another nerve
<i>tocuitlapan onoc yehuatl</i>	is in our back
<i>yn iquac techcocohua yn telchiquiuh</i>	then our chest is hurting us
<i>In tlalhuatl totzintamalpan onoc</i>	the nerve which is in our buttocks
<i>quinamiqui²⁰² tometzquauhyo</i>	stretches to our thigh
<i>In tlalhuatl tohuey mapil titech onoc</i>	the nerve that is extended in our large finger of our hand
<i>yhuan yn itech toçihua ytzi yehuatl</i>	and our woman, it [is] cold
<i>yn iquac mococohua yn totzōteco</i>	and thus hurts our head
<i>yhuan yn tixtelolo</i>	and the eyes as well
<i>Ome tlalhuatl tacayo ytechpā mani</i>	two nerves in the bladder
<i>yntoca Venus Scia ticcas yehuatl</i>	named Venusia ²⁰³ we will be it
<i>ynacā mometzcaxania çihuatl</i>	it hurts the flesh or skin of the leg of the
Woman	
<i>In iquac huelo aquimatque</i>	when it unravels what we know
<i>yn huelo aquitaque yn ixquich ymachiyotl</i>	when it unravels what we see, all the signs
<i>yn izquitlamatli omito yn ocā huelnezohuas</i>	all things said, from there they bleed
<i>yhuan y[n]ca tlalhuatl [f.64r] ypan quizas yn estli</i>	blood will emerge from the nerve
<i>Auh nican huel namech melahuilis</i>	and here it will be declared
<i>ca yn ixq[ui]ch yn tlalhuatl</i>	that from all nerves
<i>yn ip[an] nesq[ui]xtillo yq[ua]c</i>	they extract
<i>yno tlaq[ui]loc</i>	they cover with chalc
<i>Auh nahui tomatzotzopas tlalhuayo ymoçohuas</i>	and four blood vessels of our wrist will extend
<i>yn iq[ua]c Ayamo tlaquallo</i>	then no one eats
<i>yh[ua]n monequi Aquimatisque</i>	and it is necessary that [we] ²⁰⁴ will know it
<i>yn iq[ua]c Aquezq[ui]xtisque yn icxtil</i>	when the foot
<i>Anoço maytl Anoço tlamistli</i>	or the hand, or [...]
<i>Anoço yn canin monequi Auh yhuan</i>	or where it is necessary, and
<i>monequi ce apaztli</i>	one bowl is necessary
<i>Aquitemitisque ynatotomili</i>	the warm water will swell
<i>ynic amo tecocos</i>	thus it will not hurt

For the images of Vein Men in ms 3523-2, there seems to have been limited care for the aesthetic appeal to the reader. Details of the human figure are not of importance and neither are its intrinsic proportions. *Reportorios* often contained illustrations of such a man in order to show the location of veins together

²⁰² Lit: “it meets our thigh.”

²⁰³ The shape of the bladder as seen on an ultrasound is described as having a butterfly shape. The Venusia is a genus of moth, and possibly therefore the bladder is named Venusia.

²⁰⁴ Lit: “who.”

with a list of ailments that could be relieved by drawing blood from particular locations. These drawings, together with an explanatory texts, “reminded the phlebotomist which vein was related to the alleviation of pain and disease in each corporal region” (DelBrugge, 1999: 11; Whitfield, 2001). The first illustration of Vein Man in ms 3235-2 (f. 61r) shows him in a frontal position and the lines that indicate the veins are in accordance with the figure of the *reportorio*. The second figure in the Andrés de Li version is standing with its back to the reader in order to indicate the veins at the back side of the human body. Although the second figure in ms 3523-2 (f. 63r) shares the same lines as the figure shown from the back side in the *reportorio*, this figure is facing us from the front. Again, it is not certain whether this was done on purpose, whether the exact meaning of the illustration was not well understood, or whether the image just happened to be copied incorrectly.

6.2 Medical treatments in Izcatqui contextualized through colonial sources

Folios 91 through 93 describe twelve ways to cure pains or illnesses with at least two types of medicinal plants. The fragments and their translations read as follows:

[f. 91r] <i>☉ Nican pehua centlamātli</i>	here it begins
[f. 92v] <i>☉ Nican motenehuan in isqui[ch]tlama[n]tli in itoca patli carto bendito, artemesa, rota Arbabo ena in occequi xihuitl yn itlatollo ca mochi quinanamiquis yn aquin tley quicocohua</i>	here are mentioned all things named medicine cardo bendito, artemisia <i>ruda</i> , <i>hierbabuena</i> ²⁰⁵ and some other grass all of its history will help who are sick
[Initial] <i>Inic centlamatli ynic pati yn aquin ytzontecon mococohua çan xoxouhqui yn cōnis yion tlamanistin carto bendito Artemesa Anoço yacacpa moltasas</i> ²⁰⁶	the first cure [for those] whose head is sick just drink something green [...] Cardo Bendito, Artemisia or the nose will throw up
[Initial] <i>Inic ontlamatli ycpati yn aquin yn ytozqui mococohua ça xoxouhqui: Anoço yn tlāco mococohua Anoço tlanquallo ehuatl contecaz y carto bentito: caquichicahuas yhuan ycpachihuis yn totlan quequetol</i>	the second cure [for] the one whose throat is sick just green perhaps [when] teeth are sick perhaps the biting it will stretch itself there the Cardo Bendito it will strengthen and it will calm the pain of the teeth
[Initial] <i>Iniquetel ycpati</i>	the third cure

²⁰⁵ The scientific name for *ruda* or common rue in English (also known as Herb of Grace) is *Ruta graveolens* (Petit-Paly et.al., 1989: 488). The plant is an evergreen and carries small, yellow flowers. It is native to Central and Southern Europe and was introduced to the Americas for medicinal reasons (ibid.). *Hierbabuena* is spearmint or *Menta spicata* (Taddei-Bringa et.al.). Both *ruda* and *hierbabuena* are known in Mexico to have medicinal characteristics.

²⁰⁶ This seems to be *tlāca*, “to throw up” (see Molina *tlāca* “echarse por estos suelos, o de alto a baxo despeñándose).

*yn aquin yn inacazqualo
yn aoc motlacaqui ynacaz con
contequilisque yn yyaya
yhua conis*

[for those] who's ears are hurting
and can no longer hear with his ear
scratch it repeatedly
and it will come back [the hearing]

[Initial] *Inic nauhtletl [sic] ycpati
yn aqui yn icueyxcochtla mococohua
anoço cuexcoch [f. 92r] tlayocoya
yiacacpa oyas omotlaxilis
no yehuatl ycuexcochhuaqui*

the fourth cure
[for those] whose back of the neck is hurting
perhaps [has] angina
place [medicine] in the nose
the back of the neck will be smaller [read: cure]

[Initial] *Inic macuilamatli ycpati yquenin
yxtelolo mococohua
yntla [a]noço yxitla cahuis nequi
yxcohomotequilis²⁰⁷ anoço
homotocas ynixqc yn aço
yx na[ci?]pa chihuilistli*

the fifth cure
[for those with] a sick eye
if the white of the eye wants to leave the face
scratch the face, perhaps
then it will disappear
eye

[Initial] *Inic chiquacentlamatli ycpati
yn aq[uin] nitechica
cohuamiyahuatl
ytechcotecazque*

the sixth cure
[translation of this cure remains unclear]

[Initial] *Inic chicontlamatli ycpati
yn aquin [...] chiquiuh mococohua conis
Aaço yqu[...]ch
mococohua yquech tlaco[n]
tecatz [...]
yn aço tzonpilhui yyacacpa
omotlaxil[...] [...] quipollohua
ynalahuac Anoço
yy[...] ça quitlayeltiya yn tlaqualli
Anoço toyollo mococohua
Anoço teltapach oytlacauh
Anoço yytlacauh yn eztili
ytoma yeccapa ytopochcopa[n]
ca yc yolis yn eztili quiyolitia
it gives life
Anoço tletl ytech motlalia ytoyollo*

the seventh cure
[for those who][...] is sick
[...]
the middle of its neck/throat is sick
[it is filthy]
perhaps to have a flu, through its nose
threw up [...]
phlegm or
[...] to suffer from nausea, [of] the food
perhaps our heart is sick
perhaps the liver is filled
perhaps [it is in] pain, the blood
our hand, in a good place, to our left hand
it will live a good life, the blood,

perhaps fire, it will provide our heart

[Initial] *Inic chicuetlamatli ycpati yn aqui
yn aqui ytech mochihua xochizihuiztli*

the eight cure
[for those[with 'spine of the flower'
[hemorrhoids]
boil it in water is bad
I will cure it with medicine
and wine
here the wine
take it, try it

*Anoço tlayeli [f.93v] mopahuazis yn atl
ynima nicmopatlaz ypantli
yhua bino
Anoço yehuatl nica bino
no yc ycuizis camiyeyecoz*

²⁰⁷ *Ixco*: "face."

[Initial] *Inic chinauhtlamatli ycpati*
yn aq[ui]n nitexihui Anoço tamaço cocoliztli
Anoço ytiyahuh Anoço ytipozahua ycuuítl
apāpa omotecaz ypatli
nauhtlamanixti Aço ytla alahuac
ychuezis yhuan monequi Achito coniz
yçihuapātli ypan [...]nis ynpiltōtli yniyaxix

the ninth cure
perhaps the illness of the frog
will go away, perhaps it will swell the arm
put the medicine on there [the arm]
four things in front and only inside
will slide and a small amount will come
of the medicine of the woman [with] the urine of the
children²⁰⁸

[Initial] *Inic matlactlamatli ycpati*
yn aquin omotec ynica yncochilo
Anoço yztli [...]omotequilis
Auh ytla camohuelliti:
[...] ypā motecazqui Anoço nacahayo²⁰⁹

the tenth cure
for who laid itself down here, the knife
or obsidian knife [?], it will cut
it is very strong/powerful
[...] those who laid themselves down,
with flabby skin
they need to cover [their skin] with some herb
of the Cardo Bendito

[...] *an çan achito monequiz yn ixihuh?*
yo yn cardo bandito

[Initial] *Inic matlactlamatli once ycpati*
yn aquí yyomotla quicocohua yehua[tl] motenehua
yçihuca quahuaqliztli
mototomis²¹⁰ yn atl yc mopatlas²¹¹ ypatli²¹² coniz
Anoço hocācotecazque

The eleventh cure
[for those] who hurt their flank, he needs
to become skinny fast
[drink water]

[f. 93r] *Inic matlactlamatli omome ycpatli ynaqui*
ynaqui Adonahui oc totoqui²¹³ yc oniz

The twelfth cure
[for those] who have a fever/is in pain, they will
drink
perhaps it will purge
then it
they will dress themselves now, it already begins
trembling with cold, they will drink it

Anoço yc motlanoquilis
yniq[ua]c oconnic
motlaquētis hueliquac yyepehua
yyahuihuiyoca yconizq[ue]

[Initial] *Inic matlactlamatli omey ycpatli*
ynaqui oquiqua Anoço oconic
micohuani pātli
Anoço tocatl anoço colotl
Anoço petlaçolcohuatl
Anoço petlaçolcohuatl
Anoço tequacolhuatl oquiq[...] coniz

ypatli ynauhtlamanixtin ypatli

The thirteenth cure
[for those] who ate or drank it
something deadly, poison
perhaps [of the] spider, or [of] scorpion
perhaps [of the] centipede
perhaps [of the] centipede
perhaps [from] the wizard [...] he will
drink
the medicine, four things [times], the medicine

²⁰⁸ Read as such: spread a small amount of the medicine of the woman, mixed with the urine of children, and spread it four times over the infected arm.

²⁰⁹ *nacahayo*: “flácido” in Spanish or “flabby” in English.

²¹⁰ *totomio*: “hair”

²¹¹ *patla*: “change”

²¹² *pantli*: “banner, flag.” The words ‘hair,’ ‘change,’ and ‘banner’ in combination with medicine and drinking water does not make sense.

²¹³ Unclear if it should be read as *totonqui* “warm, fever” or as a derivation of *totoquiliztli* “pain.”

A medical treatise – such as the fragments above – would not traditionally be part of a *reportorio*. As Izcatqui’s very existence centers around pre-existing texts, it is not a far stretch to hypothesize that this fragment also derives from an already circulating text – either in Spanish or Nahuatl – that was reworked to fit the purpose of writing ms 3523-2. The easiest way to try and search for (a) possible source(s) is to find references to the plants mentioned as cures in Izcatqui. By doing so, one may be able to contextualize this medical treatise within a literary discourse in the first century of a colonial (Central) Mexico. By following this methodology it becomes apparent that two types of plants are referred to in colonial writing: *ruda* and *hierbabuena*. In addition to the medicinal features of the plants *ruda* and *hierbabuena*, *cardo bendito* (also known as *Cardo Santo*) and the family of the *Artemisia* were well known plant species and have been documented for their medicinal purposes as well.

6.2.1 *Cardo Bendito (Cardo Santo) and colonial literature*

Dictionaries define *cardo* as “thistle” in Spanish. However, it is rather difficult to find the correct species to go with the name *Cardo Santo*, as different sources are not in accordance with one another and refer to a multitude of not only species but genera as well. Therefore, in the following I will list possible *Cardo Santos* plants that are known to Mexico. The online *Biblioteca Digital de la Medicina Tradicional Mexicana* of the UNAM (Universidad Nacional Autónoma de México, Mexico City) is a collection of a large range of plants and their medicinal use throughout Mexico by indigenous peoples. The digital library not only describes where these plants are currently in use, but also lists their historical references. The library lists *Cardo Santo* three times and for all three instances it refers to the genus *Cirsium*, which is a member of the *Compositae* family, more commonly known as thistles. There are over 200 species, of which the library mentions *Cirsium mexicanum* DC, *Cirsium subcoriaceum*, and *Cirsium anartiolepis petrak*. The genus *Cirsium* is described as “cosmopolitan” because it is found throughout Eurasia, Africa, and North America. Its species *mexicanum* is native to Mexico and Central America (Invasive Species Compendium online <http://www.cabi.org/iscbeta/datasheet/119800>, consulted April 3rd 2014), but the other two species are found in parts of Mexico as well. The most striking difference between the three species discussed by UNAM is the colors of the flowers, which are purple, yellow, and red respectively.



Figure 55. *Cirsium* Sp. in the State of Tlaxcala, Mexico. Photo courtesy of Ludo Snijders.

Figure 56. Detail of flower of *Cirsium* Sp. Photo courtesy of Raul Macuil Martínez.

The vast indigenous knowledge of the medicinal power of native plants and the interest in them for those arriving from the Old World is reflected in a number of colonial writings. Vegetation is a recurrent theme on murals, demonstrated by the colorful painted walls in Teotihuacan, for instance. Although

originally created in the context of Mesoamerica's rich pictorial expression throughout history, these murals flawlessly took their place in another religious context – that of the Catholic monastery. And just as in Teotihuacan, painted plants did not just play a mere decorative role, but expressed a very tangible function: to combine and harmonize the world of both the mendicant and the indigenous peoples. The monastery of San Francisco in Tepeapulco was the first one established by Franciscans in the Mexican state of Hidalgo (Ballesteros, 2000: 17). It was here that the most famous Franciscan missionary, Bernardino de Sahagún, began his collaboration with a dozen elderly men and four others who he had taught Latin to collaborate and write parts of the 12 books of his *Historia General de las Cosas de Nueva España* (Ricard, 1974: 41; León-Portilla, 2002: 144, 146-148).



Figure 57. Cardo Santo as depicted on a mural in the convent of San Francisco Tepeapulco, Hidalgo Mexico. Photo courtesy of Raul Macuil Martínez.

There are several authors who mention the *cardo* (or Cardo Santo) and artemisia plants in their documentation of the early years of the Spanish presence in current Mexico. We find references in the *Historia General de las Cosas de Nueva España* in the work by Fray Bernardino de Sahagún; in the *Libellus de Medicinalibus Indorum Herbis* by Martín de la Cruz; in the *Quatro Libros and Obras Completas* by Francisco Hernández, and in *Tesoro de Medicinas para Diversas Enfermedades* by Gregorio López. All but de la Cruz, were born in Spain and travelled to the New World, where a royal incentive, no doubt mixed with a dose of pure curiosity into the yet to be explored continent, resulted in a veritable corpus of encyclopedic accounts of Mexico's natural resources.

According to the work by Sahagún, the Castilian *cardo* is a *huitzquilitl*, which translates as a thorny plant. The illustrations in the *Historia General* point to exactly that spiny character (see Figure 58). These are said to have a beneficial effect on the digestive system and purify the intestines (Book 11: folio 136 and 137).



Figure 58. Huitzquilitl, quaujtzquilitl, chichicaquiltil and tonalchichicaquiltil. From Bernardino de Sahagún, *Historia General* (Florentine Codex) Book 11, folio 136.

The following colonial book that refers to a cardo species is the *Libellus de Medicinalibus Indorum Herbis*, a beautifully illustrated catalogue by Martín de la Cruz. The text is a Latin translation by Nahua nobleman, Juan Badiano, of an original Nahuatl text which is no longer available (De la Cruz, 2000: iii). In the introduction to the 1939 English translation of William Gates, Bruce Byland writes that the original text was authored by Nahua physician Martín de la Cruz at the Colegio de Santa Cruz at the convent of Tlatelolco (*ibid.*). As such, the *Libellus* is also known as the Codex de la Cruz-Badiano, honoring its author and translator. The Latin version reached Spain in 1552 and became part of the library collection (later to be incorporated in the Vatican Library) of Cardinal Francesco Barberini. In 1990, the book was returned to Mexico by Pope John Paul II and is now stored in Mexico City (De la Cruz, 2000: iii). The catalogue is divided into thirteen short chapters. The first twelve are a guide to a physician in his or her selection of plants. More specifically, the text explains how to combine plants in order to cure a range of conditions, whether these relate to the sight, internal pains, or a new mother's milk production. The thirteenth chapter describes the physical characteristics of a patient who is losing the battle of fighting off an illness and so is about to die.

On four occasions, *huitzquiltil* (f. 9v; 41r; f. 50v) or another member of the thistle family *quauhtla huitzquiltil* (f. 32r) is part of a recipe, to be used either as a rubbing or to be taken as a digestive. Three of these recipes are illustrated, two of which are named *huitzquiltil* (see Figure 59) and one *quauhtla huitzquiltil* (see Figure 60). Although different in name, they are a *huitzquiltil* with just one flower instead of multiple one. According to the “Analytical Index of Plants,” – which was used to identify possible botanical origins for most of the plants by Mexican scholars in the 1960s – *huitzquiltil* (“thorny edible; thistle”) is a cardo species or *Cynara scolymus* L. *Quauhtla huitzquiltil* (“thorny edible growing in the woods”).

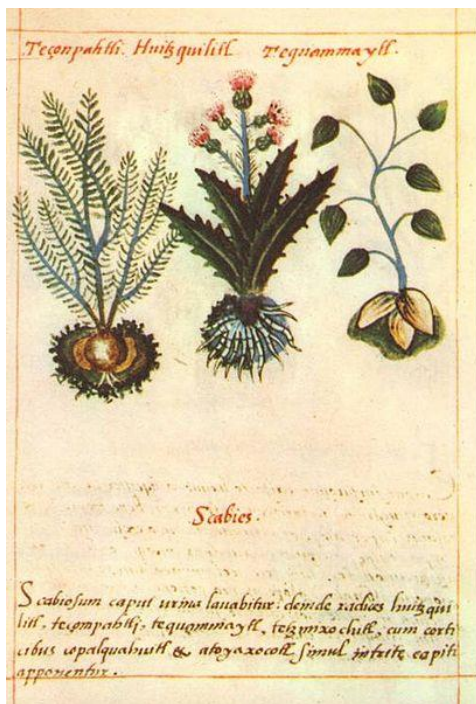


Figure 59. Huitzquiltil in *Libellus de Medicinalibus Indorum Herbis* f. 9v
 Figure 60. Quauhtla huitzquiltil in *Libellus de Medicinalibus Indorum Herbis*, f. 32r.

According to De la Cruz, the cardo is used to cure scurf of the head; an abdominal chill; “black blood” and inflammations (recipes in his work on folios 10, 55, 73 and 90).

A third and fourth source with which the tlacuiloque of Izcatqui could have been familiar with were the *Quatro Libros* and *Obras Completas* by Francisco Hernández (ca. 1515-1587). Being the royal doctor at the time, Hernández was ordered by King Philip II to travel to the New World in the 1570s to become chief medical officer. Once there, he was to document as much as possible about medicinal plants, give a portrait of the areas’ natural history, and collect ethnographic data from the Valley of Mexico (Hernández, 2000: xi). He is described as being “one of the greatest physicians, historians, and naturalists in Spanish history” (Weiner, 2000: 3). Hernández is also known for his extensive translation of the *Natural History* by Pliny, and his writings on Galen and Aristotle. Hernández stayed in Mexico for seven years and returned to Spain in 1577. On his return, he brought with him an extensive manuscript describing the natural history of (a part of) the New World. One copy, his corrected draft, is stored in Madrid; another complete copy was presented to his royal principal and got destroyed in a fire in the seventeenth century. Fortunately, copies, translations, and prints of parts of the manuscript were made prior to the fire, so Hernández’ work has not been lost completely.

Hernández’ work demonstrates his special interest in plants and their medicinal purposes. More than 3,000 plants are recorded in his writing, many of them accompanied by paintings made by indigenous artists (Weiner, 2000: 4). References to the work by Hernández for the present study derive from two publications: *Obras Completas* and *Cuatro Libros*. The first publication clearly mentions the use of a plant named *cardo*. The fragment below is from second volume, book five, chapter CXLII, page 267 of the *Obras Completas* 1959 publication:

“Del CHICÁLLOTL o cardo

El *chicallotl*, que otros laman *chichicallotl*, es un espino con raíz ramificada, de donde echa tallos blanquecinos y espinosos, hojas como de cardo santo, largas, angostas, sinuosas, espinosas y de color ceniciento; flores redondas amarillo rojizas y a veces blancas, parecidas a las de adormidera; fruto oblongo, estriado. áspero y lleno de semilla negra y pequeña. que molida y tomada en dosis de dos dracmas evacua todos los humores, pero principalmente los pituitosos y los que dañan las articulaciones. Tiene sabor y olor parecidos a los del síser. Su leche mezclada con leche de mujer que haya dado a luz una niña y aplicada a los ojos, cura las inflamaciones de los mismos; es efic'az contra los accesos de las fiebres y cura las úlceras de las partes sexuales; la flor epicada cura la sarna. El sabor de esta hierba es amargo y su temperamento caliente y seco. Dicen algunos que el jugo destilado de ella y de los renuevos del *mizquitl* disuelve las nubes de los ojos, consume la carne superflua. calma el dolor de la jaqueca y auxilia notablemente en otras enfermedades semejantes. Nace en el campo mexicano. tanto en lugares montuosos como en los campestres.”

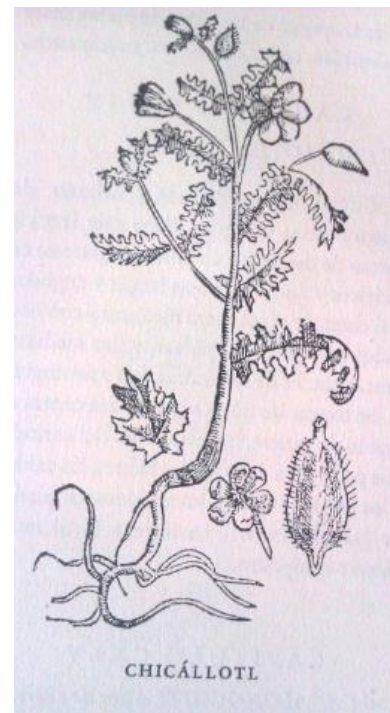


Figure 61. Chicallotl or cardo as depicted in the *Obras Completas*

The drawing from the *Obras Completas* however, does not illustrate a *Cirsium* genus but rather to a *Argemone mexicana* L.

The final colonial author that mentions *cardo santo* is the *Tesoro de medicinas para diversas Enfermedades* by Gregorio López (1542-1596). At the age of twenty, López left for New Spain. Here he became known a mysterious wandering man, devoting his life to honor God and gifted with a spirituality that enabled him to “penetrate hearts, and [being in] the company of angels” (Bilinkoff, 2003: 115). His wandering spirit led him through different (indigenous) villages. Several times he fell ill under his extreme fasting and malnutrition, but according to his biographer friend and priest Francisco de Losa, he never lost track of his spiritual quest, and took time to counsel others on the faith as well. It is probably during his stay in Zacatecas (province of la Huasteca) while hospitalized during illness, that he composed his *Tesoro*. He penned down his information from indigenous knowledge gathered during previous journeys and finished it in 1589. His health failed him during the years to come and he eventually died during the summer of 1596 (Bilinkoff, 2003: 115). As said, López finished his *Tesoro de Medicinas para diversas Enfermedades* in 1589 (see Figure 61).

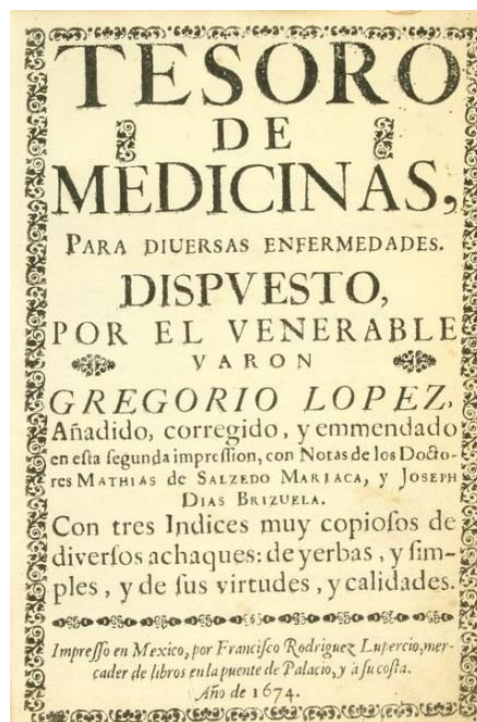


Figure 61. Cover of *Tesoro de Medicinas* by Gregorio López. Mexican edition 1674.

His work circulated as a copied and handwritten manuscript up until the moment it was first printed in 1672 in Spain. The book was such a success that it was printed a second time two years later in Mexico and yet again in 1708 and 1727 in Madrid as well. The success of the book was due for the most part to its accessibility. It provided simple recipes that were manageable for those without means in rural areas and in the lower classes in the city. In his work, he mentions for 28 illnesses that *cardo santo* is of help. Examples of illness or conditions are tumors; troubled minds; swollen eyes; pain in the ear; rheumatism; stomach cramps and headaches.

The *tlacuiloque* of Izcatqui could have been familiar with any of the writing of the authors mentioned just now. The paragraph above would seem to point to an interest in and familiarity of the

medicinal purposes of some of the herbs that the *tlacuiloque* included in the eighteenth century Nahuatl text of Izcatqui.

6.3 Nahuatl renderings of ‘Master Doctors’

The discussion in Izcatqui on the medicinal use of *cardo santo* and *artemisia* continues with the following:

[f. 94v] *Yzcatqui yn qu[e]nin motocaz
ynic motocaz ynauhtlamanixtin ypa[?]]
cemixtli ymocalaquis ytomapil
yp[an] cepoto pan ceq[uar]rto
ça mochiuhq[ui]ynic motocasqui
huel iq[ua]c yhual momana metztli
anoço yquac ytlayahualohua
ca huelitecopatzinco
yntohueytlatocauh
yn Sancto padre in o[m]pa Roma
yc titopatisque yctechmotlaocolilia*

here it is, how it will follow
thus it will follow, the four
are in sight, it will enter our finger
a point, a quarter
it just continues
thus good, comes the offer of the moon
maybe it is covered
by authorization of
of our Great Lord
the Holy Father, there in Rome
who gives us mercy, so that we can cure
ourselves

*Ca yzcatqui: nica[n] pehua²¹⁴
oc centlamatli ynquenin nepatiloç
Yn ixquich cocoliztli
yn quiyacatia yehuatl
yn cenca nohuiya mococohua yn tlacatl
ytoquechtlan poçahua
yni[...]hohu[e]tzi²¹⁵ yn tococo
Auh yntlacatle y[...]nonamictiya
Ypatli
ca yehuatl nima[n] [...]c iuhcan
ymocochua [...]*

here it is: here it begins
how each thing will be cured
all illness
it spears it/he points it
everywhere people are very sick
the neck is swollen
[...] our throat
and the people [...] are pairing up
Medicine
here it is
when it is sick

This text is followed by nine short paragraphs, each of them beginning with the same sentence: *Quitohua yn occe tiçitl ytoca [...]* which translates as: “it says [of] another doctor named [...]. The closing paragraph of this section of Izcatqui provides a recap of the content of the nine preceding ones:

[f. 96v]
*Auhca[n] nican omotocayotique
yxpantzinco yn dios yn totecuiyo
Auh yhua ypanpā Bonifacio quitohua
Ma xiquimacacan yn ixquich yn intechca

yn cocoliztli
maxiquimacacā yxiuhtzintli
ynic amo momiquilisque
ma yuh mochihuā huel neli patisque*

and here they have been mentioned
before God, our Lord
and with Bonifatius it says
may they all have been given something to
go with
the illness
may they have been given the herb
so that they will not die
let it be that they will cure very well

²¹⁴ Written in capitals.

²¹⁵ *huetzi* “to fall.”

Estos Maestros de doctores
Juliano. costiatino. dioscorides.
nicolao giliberte. Bonifacio

these masters of doctors
Juliano Costiatino, Dioscorides
Nicolao Giliberte, Bonifacio

So what preceded this paragraph must have been a discussion of several methods the *maestros* employed to cure using herbs of some origin. The names of the maestros refer to Pedianus Dioscorides (see below) and probably Julianus Alexandrinus the Methodist, Constantinus Africanus, Nicolaus Salernitanus and Gilbertus Anglicus (personal communication Maarten Jansen, 2018). Let's take a closer look at the more detailed discussions of the doctors and their accreditation below:

[f.94v] [...] *Aquitohua yn tiçitl yn itoca Julia[n]o*
yn tlacana otiquitac yn iuhqui ytech[ca]
yn cocoxqui yn quechpozahua
manina maninia moço
Auh çatepan coniz yn niyaya
yn itoca castillan tlaolli
Anoço: /.../tcatl poço[n]qui
Monamictiya
yn itocan cevata
Auh yticchihuaz ticnechicos
ynquali [f.94r] tetl yn itoca Sancria
ynic nezohuaz yn tonenepil
ytech yn iuhqui ypiltzin
mochiuhtica: yntlalhuatl ynitizintla
y[n] tonenepil: nimatoco[n]cuis
yn iuhq[ui] Avino
yn itech quiza yn itoca Arosa
tictecis ticpatzcaz nima[n]to
conitis toto[n]qui
ycxitinis yn oca[n] pozahua:
yn aquin nitechcan yc patis

it speaks of a doctor named Juliano
the pain, the illness or mumps
[mozomani 'inflamed']
and afterwards will drink
what is named Castilian maize
or *pozonqui* (atole of wheat)
mixed
it is named *cevada*, barley
and we will make it, we will collect it
the good stone named Sangría
so that the tongue will bleed
like its beloved child
it does: the vein that is below
the tongue: afterwards we will
like [wine]
it [leaves], it is named [Rosa]
we will grind it, we will pulverize it
it will be drunk warm
it will destroy the swelling there
we will drink it, it will cure

[f. 94r]

Auh quitohua yn occen ticitl ytoca gustati
no toco[n]cuis y[n] xonacatl ynitocā [ceboll]as
ticatilis ticnelos castillantestli /.../
yhiygos²¹⁶ yehuatl yn ayamo huaquitict/.../huazas
niman tictēcis ticnelos
ychiucha/.../layotl
niman noncan toconalahuaz/.../quechtlan
ynquechpozahua ycp[a]tz[?]huaz
Anoço yc xitinis yc patis

and it speaks of another doctor named Gustati
also take onion, named *cebollas*
we will melt, we will mix it with Castilian masa
also figs which are not dry
here we will grind it, we will mix it with
milk [chichihualayotl]
here it will slide in [our] neck
the swollen throat [...]
perhaps it will destroy, it will heal

[f. 94r]

[Initial] *Quitohua yn occe tiçitl ytoca dioscorites*
Auh tococuiç xihuatl yn itoca Rodas

it speaks of another doctor named Dioscorides
and we will take a herb named Rodas

²¹⁶ Read as *higos* "figs."

*yhuan coratro*²¹⁷ *ticnelos vinagre*
yc ticaltis castilla testli
tocomis ycpolihuis ypoçah[ua]

[f.95v]

yniquechtle yn cocoxqui
*Anoço o*²¹⁸*motlatolcauh*
*Ca yc tlatos yniquac oco*²¹⁹*nic ynatolli*
[Initial] *Quitohua yn occe tiçitl ytoca diascorides*
tictatcaq[ui]z
yn inelhuayo ynahuehuetl
nima tictēcis
ticnelos vino
Tiquicuicuxitis
yn iquechtlan tocotecaz
yn o[n]ca pozahua yc xitinis

[f. 95v]

[Initial] *Quitohua yn occe tiçitl ytoca Nico/.../*
[t]ococuis yn ixihuah ynamacapolin[y]hua
vinagre yhua[n] necuictli
mochi tinelos tictotonis
yquechtlan toco[n]tecas /.../ quilotisqui
Anoço ycxitinis

[Initial] *[Qu]jitohua yn occe tiçitl*
yn itoca giliber[te]
tococuis yn imanahuil ytlacatl
yhua[n] yperro yn iyomiyo yquaquahue
Anoço ychichicauh yhuan ticcentlalis
ca yc xitinis yn iquechtle
tocontlalis tocotecasque yn cocoxqui

yc patis yhuan
tococuis huitziloxi[tl]
tiquicuicuxitis Atl
yhuan tococuis yn icuital carnero
yehuatl ynohuac tictēcisqui
tocontepehuas ynipan yniyayo
ynocuiltin Auh mamiyacpa
contecas yniquechtle[n]
cenca quicocos tel ic xitin[i]s
yn o[n]ca[n] pozahua ca yc Patis

[f. 95r]

[Initial] *Quitohua yn occe tiçitl yn itoca Juliano*

and we will mix it [with] vinagre [four times]
he will bathe himself in Castilian grain/wheat
he will take it to destroy the swelling

its neck, it is sick
perhaps the word is ended [i.e. unable to speak]
then it will speak, it drank *atole*
it speaks of another doctor named Dioscorides
we will hear our father
his old root
we will grind it here
we will mix it [with] wine
we will drink it so that it cures
put in on the inside of the throat [i.e. drink it]
when it is swollen there, it will go away

it speaks of another doctor named Nico[lao]
we will take the herbs of the mulberry
vinagre and the fragrance
we will mix it, we will heat it
its throat will extend [...]
or it will destroy it

its speaks of another doctor
named Giliberte
we will take the protection of him
and the dog, the bone of the horned animal
or its bile and we will mix it
it will cure the throat
the throat will settle, the throat will put them to
sleep, the illness
when it will be cured and
the throat will take the *huitziloxitl* [balm]
we will take it [?] the water
and the throat will take the excrements of the sheep
we will grind it
the throat will throw
[..]
its throat will put it to sleep there
it will be very sick, but it will destroy it
it swells up there, by which it will heal

it says of another doctor named Juliano

²¹⁷ Read as *cuatro* “four.”

²¹⁸ “o” in superscript.

²¹⁹ “o” in superscript.

ca yc mocentalique yn ixq[ui]chtin y[n] titiçitl all doctors help people
tococuis yn xihuitl ytoca bexbena xictizi the throat will take a grass named hierba buena

Amoqatic onca[n] t[ocote]cas there the throat will put it to sleep
yn ipan yn mococohua yc xitini? it sickens itself, when it destroys it
yn pozahua yc patis it will swell up by which it will heal

[f.96v]

[Initial] *Yhuan quitohua xipā[l] nechico* and it says, the lip brings together
tococuiz yn ixquich pātzintli xiccencitizin the throat will take all esteemed medicine
xicpatzcā moquechtla tictecasqui it wrings your neck, we will bring it to sleep
cequi ticnelos y xitinis we will mix it some more, it will destroy
yn ocā poçahua there it swells up
Auh yc patis by which it will heal

[Initial]

Quitohuā yn occe tiçitl yn itoca Juli[ano] it says of another doctor, named Juliano
toconanas yn totolin yn amo tom[a]huac the throat will take it, the skinny chicken
moteçis oc nimā yçiuhca another will be crushed here, quick
ticnelosqui vino cenca yniyo we will mix it [with] wine
Anoço canatiqui[...] ca totoni yas or it will have a fever
y[n i]quac yncan iuhq[ui] then
[...]atezcatl mani [...] give
totoqui yez yn tocōtecas [...] it will be warm, the throat will put it to sleep
moquechtlā Ahu nimā timocozqui your neck, and here we will
ymonenepil ytech yc tipatis your tongue [...] we will cure it

6.3.1 Pedianus Dioscorides

Of the *Maestros de doctores* that are covered in Izcatqui, it has only been possible to recognize two known names, and only one makes sense in the medicinal context: Dioscorides. Pedianus Dioscorides (or Pedianous Dioskouridos) was a Greek born in the Roman Empire in what is now Turkish territory. He probably lived from AD 40 to AD 90 (Osbaldeston, 2000: xx). As a civilian doctor or perhaps as a military physician in the Roman army he travelled throughout the Mediterranean (Dioscorides, 2005: xvi). Under these circumstances he came across many conditions and regional medicinal plants, and experimented with the use of them to discover new ways of curing. This he recorded in his monumental *De Materia Medica* (probably AD 64), which contains no less than a thousand recipes – of which many were unknown at the time – from around 600 plants. He combined these recipes providing instructions on how to collect and produce drugs from animal and mineral origin (Osbaldeston, 2000: xxii). His *De Materia Medica* also included (brief) descriptions of the physical appearance of the plants used, so later readers of his work were able to find them in nature with relative ease. This was one of the reason why his work became so popular in the following two millennia and received the status as ‘the ultimate authority on plants and medicine’ (Osbaldeston, 2000: xxi). He believed it was essential that any physician was aware of the geographical distribution of plants and the stages of growth, as well as that their medicinal properties empirically attested in the field (Dioscorides, 2005: xiv). Dioscorides’ work consists of five books. Book One describes aromatic plants, how to make salves from the oil or gum of plants and herbs, and how to make use of fleshy fruits. Book Two is a recollection of animal products and a variety of herbs and cereals with medicinal characteristics. Book Three discusses several herbs,

seeds, roots, and juices as nutritional or medicinal. Book Four describes poisonous plants and narcotics. Finally, Book Five describes the use of vines, wine, and metallic minerals in medical practice (Osbaldeston, 2000: xxii).

Dioscorides' status as the 'ultimate authority' is reflected in the course his *De Materia Medica* took over the years; that is, the vast geographic and diachronic reach of its copies, translations, and commentaries. Dioscorides was mentioned for the first time in alphabetic Greek writing – following earlier papyri – in the fourth century by physician Oribasius, possibly the first author of an alphabetical Greek version (Dioscorides, 2005: xviii). Most beautifully illustrated are the Greek copies from Constantinople, which include the oldest and most famous surviving book *Vienna Dioscurides* manuscript²²⁰ or *Juliana Anicia Codex* from AD 512 (Dioscorides, 2005: xiv; xviii). A great variety of commentaries and glosses reflecting medical discourses of the time ended up in later texts of *De Materia Medica*. These additions took place right up until the printed books from the Renaissance, contributing to the *De Materia Medica* long and complex trajectory (Dioscorides, 2005: xviii-xx).

In relation to the mentioning of Dioscorides' work in Izcatqui, it is to be expected that it existed in the Spanish language as well. And it did. It appeared in several vernacular languages in print in the sixteenth century: Dutch, Italian, German, and French between 1520 and 1553; and Castilian Spanish in 1555. It was translated into English in the mid-seventeenth century, but was not published until three centuries later in 1934 (Goodyer-Gunther edition, named after its seventeenth century translator and twentieth century editor). There are two modern English editions of Dioscorides' work: one by Tess Anne Osbaldeston (2000) and a new translation by Lily Beck (2005) based on a modern Greek edition in three volumes by Max Wellmann from 1906-1914 (Dioscorides, 2005: xx-xxi). John Scarborough as author of the introduction to Beck's translation criticizes the edition from 2000 – even going as far as to suggest plagiarism – for not contributing anything to its translation and merely changing its lay-out (2005: xx).

6.3.2 Spanish translations and editions of *De Materia Medica*

In Barcelona 1953, César E. Dubler published *La 'Materia Médica' de Dioscórides – Transmisión Medieval y Renacentista*, Vol. 1 *La transmisión medieval y renacentista y la supervivencia en la medicina popular moderna de la 'Materia Médica' de Dioscórides, estudiada particularmente en España y en África del Norte*. This volume was followed by five others; volume six was published in 1959. Dubler provides a historical overview of ancient medicine before introducing Dioscorides and his work translated in Spanish. In addition, Dubler discusses several of the Arab translations of *De Materia Medica* from the ninth century. Some of these found their way to Spain and became the guiding textbook on botany in Muslim teaching centers in the Peninsula (Dubler, 1953: 49-50). Dubler continues by listing several translations in Latin and makes the following statement:

“[...] [L]as traducciones de las obras árabes al latín hicieron que perdiesen su genuino valor científico, fatal consecuencia de una aguda academización. Hacia fines de la Edad Media, la obra de Dioscórides en latín está totalmente desfigurada y, a pesar de imprimirse ya en el siglo XV la traducción latina medieval del Dioscórides alfabético, está ya no reunía las condiciones ni correspondía a las nuevas exigencias de la ciencia y de su nomenclature.”

(Dubler, 1953: 63)

Texts are everchanging as they travel through space and time, and as they are molded according to their contemporaneous situation. However, as *De Materia Medica* was translated into Spanish, it entered a

²²⁰ The Akademische Druck-u. Verlagsanstalt published a facsimile of this edition in 1970. See http://www.adeva.com/faks_detail_bibl.asp?id=103

world which was on the one hand was very far from that first century AD in which it originated; and, on the other hand, was still very much rooted in the (re)writing of Classical Greek and Roman scholars.

Having scientific traditions of their own, the composers of the Nahuatl manuscript were not familiar with any of the writings of these scholars overseas. The fragments in Izcatqui that refer to Dioscorides appear to be just snap shots, but they represent a legacy spread over centuries in the Classical, Medieval, and Renaissance periods. It was botanist Andrés de Laguna who translated *De Materia Medica* in 1555 into Castilian Spanish for the first time, basing himself on a Latin version by Ruelle from 1518. The Spanish work was amended by commentaries and personal observations, and as a first edition printed in Antwerp by Juan Latio in 1555. The original by Laguna, unfortunately, no longer exists today (Dubler, 1955: vii; viii). Dubler lists a number of other editions, mainly from Valencia and Salamanca. Matías Gast edited two that were published in Salamanca (1563, 1570). This is the same city in which the edition by Cornelio Bonardo saw the light in 1586. There were also three editions in Valencia by Claudio Mace, Vicente Cabrera, and Herederos de Benito Mace that appeared in 1636, 1677, and 1695 respectively (Dubler, 1955: viii). The latest edition mentioned by Dubler was produced by Domingo Fernández de Arrojo in Madrid in 1733 (Dubler, 1955: viii). The third volume of *La 'Materia Médica' de Dioscórides* by Dubler was published in 1955 and is the first out of the six volumes that includes the Spanish translation by Andrés de Laguna – this edition originates from the Salamanca 1570 edition by Matías Gast and was chosen for its clear and complete character and typical language of sixteenth century Castilian (Dubler, 1955: xviii-xix).

The references to the work of Dioscorides illustrate the interest of the *tlacuiloque* of Izcatqui in a long history of writing from the Old World. In the late sixteenth century, Juan de Cardenas wrote about indigenous medicinal drinks and chocolate in his *Problemas y secretos maravillosos de las Indias*. He explicitly mentions that he is not going to write about Spanish medicinal drinks, and refers the reader to the work by Dioscorides (1988: 140). Cardenas was more interested into the novelties of the New World; just as the *tlacuiloque* were interested in what the Old World had to offer them.

6.4 Indigenous ecology: flora and fauna

The apparent need to study time and most prominently the changing of time in Western Europe was examined by James Carson Webster in a study of the representations of farming activities in medieval times. Many friezes and sculptures throughout the region depicted farmers working in a typical fashion during a specific time of the year. Friezes were divided into twelve parts and each section had a small representation of its zodiac sign, thereby linking months of the year to heavenly influences and agricultural tasks (DelBrugge, 1999: 7). What is central to the flourishing of humanity across the globe is the procurement of food; either by gathering, cultivating, or by a combination of both. Independently of the local calendar system in play, people need to know when and where to find available foodstuff and when is the correct time to sow, plant, and harvest within the growth cycle of each food source in their natural surroundings. Prior to the invention of greenhouses and temperature and precipitation control, these kinds of knowledge were of the utmost importance. As a result, such knowledge structured daily life and its organization in very fundamental ways. In both Mesoamerica and Europe agricultural activities became central features in depictions of the passing and structuring of time. The main iconographical element accompanying the months of most calendars during the European Medieval Ages was an emblematic activity related to what needed to be done in the field.

Agricultural practices are mentioned in Izcatqui, first in relation to the beginning of a time in which darkness was driven away by the arrival of light. Subsequently, agricultural practices feature prominently in Izcatqui's description of the founding of a new order (i.e. a calendar) in place of what was previously a period of chaos.

[folio. 12r]

ayamō tlē quipiayān

ca çāmonēlonecan.

Ayamotlatecpātli catca.

imētz tlapōhualiz(tli?) ànoço intlā tecpānaliztli

They did not have anything yet

it was mixed up

something has not yet been ordered

their month count, or the order

The text continues by explaining that order has returned by the arrival of something indicated by the third person singular (he/she/it) with a face other than that of a devil, so it might be a reference to a Pope, or the calendar in general. This is followed by:

[folio 12r-13v]

Ca in iquic. itech onaçi ixihuitl

iac xihu-tl itōcan yèhuātl machiyōtl

oncān pēhua imācēhualtin

in iuh quē imīl chiuhqe milchīhuani

?camoa ēlimiqui ihuān tōca pixcan

together with him, the days arrived there

the name of the year was signed

there begin its commoners

to cultivate, to harvest

its fields, they are ‘fieldmakers’

In two instances Izcatqui displays a selection of agricultural products that are often grouped together in a typical *reportorio*. These products are referenced in the part of Izcatqui that discuss the seven planets and over which earthly features they rule. The second group of references is part of the twelve months and provides practically oriented information about what to sow and harvest throughout the year. In the following, I will examine how the vegetables, fruits, and other agricultural products mentioned in Izcatqui compare to the agricultural products mentioned in typical Spanish *reportorios*. There are two reasons for doing so. The first is to find out if the products that are mentioned in Izcatqui are the same or different from those in Spanish *reportorios*; and the second is to find out if these products were present in Mexico in the early colonial period. Thus, my aim here is to ascertain whether or not there are any indications that the content of Izcatqui was designed to accommodate the agricultural products and practices of the New World.

The almanac provides the reader with information on several planets and which metals, stones, animals and vegetation they affect. I have compared two Spanish *reportorios* (namely De Li’s edition from 1495 and Salaya’s edition from 1542) with Izcatqui. The results are found in Appendix I. It becomes clear that the planets in Izcatqui affect less items/animals/produce than a Spanish almanac. Also, all of the metals and stones which are not regarded as precious or as emeralds, are omitted from the Nahuatl text. Those that are precious and emeralds are translated as *chalchihuitl* or jade, a precious local stone.

6.5 Typical Mesoamerican ‘ingredients’ in Izcatqui

One research question of this study that concerns the methods of translation of the *tlacuiloque* of Izcatqui is: how was an original source text deconstructed and reconstructed for the desired readership of Izcatqui? Part of this question can be answered through an analysis of terms that were left out of the original text and substituted or added to the target text. Below, I will contextualize those terms that would have had a certain familiarity and significance to an indigenous reader.

6.5.1 Jade [chalchihuitl]

All of the seven planets rule over one or more types of metal and none of these metals recurs in Izcatqui. Two planets (Sun and Jupiter) rule over gold, precious stone, or emeralds – these do have a representative in Izcatqui, *chalchihuitl*, or precious green stone. According to the dictionary by Frances Karttunen, this signifies turquoise; the GDN, however, translates *chalchihuitl* as jade and gives *teoxihuitl* or *xiuhtomolli* as turquoise. In reality, only jade is really a green stone, and turquoise a more green-blue one. Taking the color into consideration, *chalchihuitl*, in my opinion, is more likely to be translated as jade. Nonetheless, both jade and turquoise are considered symbolically as “precious stones” in Mesoamerica and both stones are found in many archaeological excavations throughout Mesoamerica and throughout history. Jade mosaics, masks, body adornments, vessels etc. are found in the early Formative Olmec period (2000-1200 BC), in the grand capital Monte Albán of the Zapotec area (jade pectoral in the shape of a mask dated 150 BC-AD 100, to the Classic Maya (e.g., the famous jade mask at the tomb of Lord Pakal of Palenque) and well into the contact period of Nahuatl Central Mexico (McEwan et al., 2006: 14-16; Taube, 2005: 23). Jade is also an iconographic element that shows up frequently in Mixtec and Central Mexican codices. Mixtec Codex Bodley, renamed as Codex Ñuu Tnoo – Ndisi Nuu and recounts the genealogy of the rulers of Ñuu Tnoo (Tilantongo) and Ndisi Nuu (Tlaxiaco) in the Mixteca Alta, state of Oaxaca. This colorful, illustrated work of art was probably painted in Ñuu Tnoo, a few years prior to 1521 (Jansen & Pérez Jiménez, 2005: 30). The codex commences with the first ruler, Lord 4 Alligator Eagle of Blood, and continues to his descendent, Lord 4 Deer, who was living at the time of the conquest and to the last ruler of Tlaxiaco, Malinalli or Lord 8 Grass, who was sacrificed by Aztec warriors ten years prior to the Spanish arrival in the area (Jansen & Pérez Jiménez, 2005: 36). In this codex, the iconographic element for “jade,” “preciousness,” or “jewel” is a recurrent motif and appears no less than on 25 of its 40 pages. The motif displays an element comprised of concentric circles embellished with pearl like dots in a green color (i.e. the color of jade); in this case it is part of the name of Lord 13 Eagle, “Precious Jaguar” (Jansen & Pérez Jiménez, 2005: 58). In the same codex, the element reappears again as an object of conquest: the Jewel Stone of Ash River. Jansen & Pérez Jiménez (2005: 63) explained that the Jewel Stone of Ash River was “a precious object associated with the West, the realm of the descending Sun and Venus.” We can not be sure of the effects of the word *chalchihuitl* to a Nahuatl reader, however, it must have conveyed the preciousness and power of what a gem would have conveyed to the reader of a Spanish almanac.

6.5.2 Cochineal [nocheztli]

“Blood of the cactus” or *nocheztli*, is a beautiful denomination in Nahuatl for the cochineal insect that feeds on cacti. The English word cochineal is derived from the Spanish *cochinilla*, which in itself comes from the word *coccum* proposed by Pliny’s *Natural History* to describe another insect known for its pigment (Cardon, 2007: 619). Tiny bugs, no bigger than 1 cm, feed on a variety of host plants in large parts of Asia, Africa, Europe, and America. These bugs are often used for the production of a red pigment, and as a result of this practice the nine American species are divided between domesticated and wild cochineal (*ibid.*: 619-620). Before the arrival of the Spanish in the American continent there were two centers where cochineal were known to be abundant: Mexico and the Peruvian Andes (*ibid.*: 621). Providing the best living conditions for the cochineal insect requires hard labor and good time management. According to the ethnographic descriptions on this process by Donkin (1977), young cacti pads are cut from adult plants and buried deeply after which they grow out to be strong cacti after a period ranging somewhere between 18 months and three years. After having grown to a considerable size and strength mother cochineal are placed in between the pads of the cactus. A number of fields take part in a rotating system in which cacti are maintained to keep a certain height; dead pads are removed, and exhausted plants are allowed to rest two or three years. Within this time frame of keeping the plants

sustainable for housing the cochineal insects, farmers prepare the coming of the rainy season by cutting off and keeping dry those pads which are covered in pregnant females. As soon as the next generation has hatched, they are placed on racks in the fresh air. After the rainy season the insects that carry eggs are selected and grouped together in small baskets of around 10 to 25 expecting cochineal insects. These baskets are then placed in between pads of the cactus plant and the young insects that have hatched crawl out of the basket and spread themselves over the plant. The remaining mother insects are collected and produce what is considered to be a qualitative superior variety of the colorant (Donkin, 1977: 622). Overall, it is possible to collect insects on two or three occasions within one year.

That the harvest and production of cochineal (mainly concentrated in the Mixtec region in the state of Oaxaca) was a viable economical business in Mexico was soon discovered by the Spanish as is reflected by (early) colonial writing. The Florentine Codex by Fray Bernardo de Sahagún describes *nocheztlī* as the “blood of the prickly pear,” so specifically mentioning the fruit of the nopal or *tuna* in Spanish in contrast to describing the pads of the cactus (see folio 216). The cochineal insects in the Codex are described as “worms” or *gusanos* attached to the pads and depicted as such (see Figure 62). These worms are said to be of very colored blood, but the Codex does not go beyond the description of the redness of the blood, failing to describe the labor involved in the production of the red pigment. What it does indicate is that the trade in cochineal was already taking off: it was even transported to China and Turkey and was a valued commodity throughout most parts of the world (folio 217).

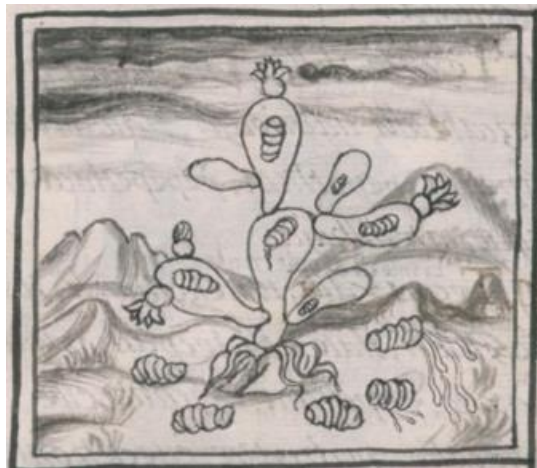


Figure 62. Cochineal as depicted in Book XI of the Florentine Codex [1540-1589], Fray Bernardino de Sahagún, folio 216.

6.5.3 Maize, beans, chili and squash

These three main food stocks are as much part of Mexican culture as is the Virgen de Guadalupe – maize, beans (or *frijoles*), and squash constitute an essential part of an average Mexican daily diet and products related to these food types are sold in many of the food stalls that color the streets of Mexico. All three products have a long history of feeding Mexico’s population and indeed the world would never had known them were it not for its domestication many thousands of years ago by its prehistoric population. As small mobile bands of people were moving into the area from North America around 10,600 years ago, hunting and plant gathering were essential for survival (Zizumbo-Villarreal & Colunga-García Marín, 2010: 814). Due to ecological changes caused by shifting weather conditions, a diverse range of grasses appeared in the Balsas-Jalisco region. Evidence points towards this particular region as the origin of species used for domesticated maize and beans as well (*ibid.*: 815-817). As far as is known, the *Cucurbita pepo* squash is the oldest plant to have been domesticated in Mesoamerica (almost 10,000 years ago) (Piperno & Flannery, 2001: 2101). As for maize, scholars are in agreement

that maize is derived from the teosinte plant, a grass native to the Balsas-Jalisco region (*ibid.*: 2101; Zizumbo-Villarreal & Colunga-García Marín, 2010: 817), and recent research has indicated that the oldest C-14 date of maize grains found in the Balsas-Jalisco region are around 9,000 years old (Zizumbo-Villarreal & Colunga-GarcíaMarín, 2010: 817). The article by Zizumbo-Villarreal & Colunga-García Marín suggests that the domestication of plants commenced in the Balsas-Jalisco region, and they reconstruct hypothesized routes along which they reached other areas for which other remains of domesticated maize are dated (*ibid.*: 818-819). Note how the tortilla – the main product made of maize in Mexico and well beyond – also recurs in Izcatqui.

Folio 88r is somewhat hard to decipher as the right margin of the folio has been damaged. However, it is not hard to discern the word *tlaxcalli* (tortilla) in its text: [...] *yn q[ui]quaz tlaxcalli yn iquaz c[...]coxocatl*. Domestication of these plants eventually developed into a system in which maize, beans, and squash were sown together, as they nutritionally complement each other within a single diet and also create perfect growing conditions for one another (Zizumbo-Villarreal & Colunga-García Marín, 2010: 822). The bean plants use the stem of the maize plant for support and grow around it towards the sun; squash is sown in between the maize plants (personal communication Raul Macuil Martínez 2014). Together these three plants were involved in a system of clearing land with fire, followed by sowing these crops. The resulting plot of land is called a *milpa*, a Nahuatl word composed of *milli* ‘cultivated land, field’ and *-pa*, ‘indicating movement toward or from a point’ so literally it translates as ‘to the field’ (Karttunen, 1983: 147, 182). Maintaining these agricultural fields requires that the land is cleared of rocks and weeds, and it has been suggested that *milpas* producing these three crops were developed around 4,500 years ago (Zizumbo-Villarreal & Colunga-GarcíaMarín, 2010: 822). *Milpas* are known from archaeological sites, occupying the beneficial flanks of hills and mountains, and make up a considerable portion of Mexico’s current landscape. *Milpas* are typically small patches of land up to 3 or 4 hectares and are crucial in supporting local families in rural areas.

In Izcatqui, the seeds of maize and beans are placed under the rule of the planet Jupiter, together with the seeds of chili, another typical Mesoamerican product. Chili, from Nahuatl *chilli* ‘chili pepper’ (Karttunen, 1983: 52), has been linked to two possible places of origin in Mexico in recent research by Kraig Kraft and co-researchers (2014). This conclusions are based on data from archaeology, ecology, linguistics, and genetics. Chili in this case is the *Capsicum annuum* L., which is the species that is used most frequently throughout the world and is one of five domesticated species (Kraft et al., 2014). The oldest remains of *Capsicum annuum* were found in the states of Puebla and Tamaulipas together with remains of maize and squash. Although it is not clear that these thousand years old specimens were cultivated or domesticated, it does indicate that chili was part of a diet that included domesticated maize and squash (*ibid.*: 2-3). Chili, maize, and beans in Izcatqui are replacing seeds of wheat, barley, chickpea, and rice, all products unfamiliar to the New World. These were, however, great food staples in Europe and it appears that they were classified as such to whoever translated the Spanish text into Nahuatl and were thus replaced by seeds of products that were important food staples in Mesoamerica.

Calabash or squash appears also in Spanish *reportorios* and as such its appearance in Izcatqui does not try to replace one less familiar Castilian product with a Mesoamerican one. In fact, the *reportorios* itself speaks of a ‘Castilian calabash.’ However, in a Spanish edition of a *reportorio* it is just mentioned as being one of the seeds under the influence of the moon, as are the seeds of cucumber and melons. This contrast with what is written in Izcatqui:

[folio 26r]

yhua Ayotli yn xicalli Anoço tecomatl

centlamātlī Ayotli caxtilla

no yq[ua]c ytzmolīnis

Auh motocas pepinos yhua calabazas

and vessel of calabash, or *tecomatl*

the one Castilian calabash

then will sprout out

and cucumber and calabash will be sown

This fragment shows two things, one maybe more telling than the other, but nonetheless present. First of all, Izcatqui describes a drinking or storage bowl made of a calabash or gourd – named *tecomatl* in Nahuatl (the same word is used to describe an earthenware vessel). Second, it starts with a description of this calabash, emphasizing this specific plant over cucumber and leaving out melons all together. The above is not just a copy of a short selection of seeds, but a reminder of the utility and abundant use in Mesoamerica of the calabash as food and container.

6.5.4 Chayote

Chayote (see Figure 63) is the cultivated species of *Sechium edule* (Jacq.) Schwarz and is a vegetable from the cucumber family that has been cultivated long before the Spanish arrival in Mexico (Lira Saade, 1996: 7). Although it is now grown in many parts of the world (the Americas, Asia, Southern Europe), linguistic evidence and pre-colonial depictions on pottery point to a Mexican origin that often carries a variant of the Nahuatl *chayote* as its name (*ibid.*: 7). From thereon it was introduced by indigenous peoples to Central America, by the Spanish to South America in the seventeenth and eighteenth centuries, and eventually to Europe, Africa, Asia, Australia, and North America (*ibid.*: 38). Most cultivated and wild species grow in areas at an altitude between roughly 500 and 1500 meters, although there are some that thrive at very low altitudes of 20 meters and some that thrive up to 2100 meters (*ibid.*: 24-25). As for Mexico, in the years 1991 and 1993 chayote was produced in a variety of states, stretching from Baja California to Central Mexico – with most of the production being concentrated in the more central states (see Figure 64). Nowadays, Mexico comes in as the second largest export of chayote after Costa Rica (*ibid.*: 39).



Figure 63. Chayote in the state of Sinaloa, Mexico.

From: http://www.fps.org.mx/divulgacion/index.php?option=com_content&view=article&id=722:el-chayote-atractiva-fuente-de-divisas-para-sinaloa&catid=37:sinaloa-produce&Itemid=373
(consulted May 27th 2014)

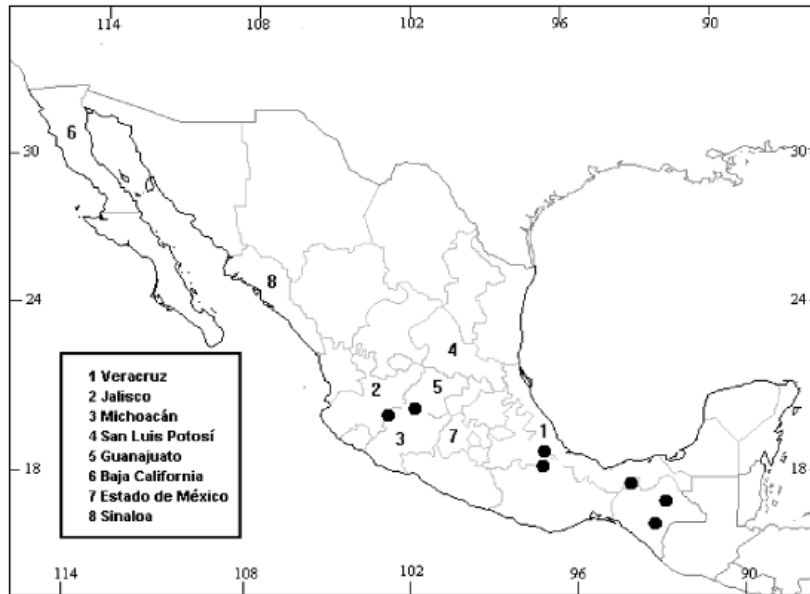


Figure 64. Main production centers of chayote in Mexico. From Lira Saade (1996: 40).

6.6 Agricultural cycle in a year

Folio 47 to folio 54 is a translated section that describes the twelve months of the year according to a fixed order. Its description holds the following information:

- The amount of days and night within the month
- The amount of hours of the day and night
- Agricultural activities to be carried out
- Characterization of the month as either beneficial or destructive to people's health
- Some instructions on how to improve one's health

Provided below is a translation of the months of January as an illustration of the type of information provided for each month.

[f. 47v]

¶ *Nicâ tiami Repr.torio*
NICAN OMPEHVAINHAINDARIO.
IN HRTIA pohualiztli

Here ends the Reportorio
 here begins the calendar
 the count

[Initial] *In metztli Enero.*
quipia cenpohualli onmatlactli once ylhuitl
âuh yn yohualli cenpohualli onmatlactli
yntlasan chicuey horas auh
yntlayohua caxtollî. Oncehora
[...]auc ypan metztli Enero
yn ochi [f. 47r]cahuac yn ixquich quahuïtl
monequi ticcentlacuicuilis
yn yehuatl ynohuetz
yn ixïuh ye monequi ycuac maquis

the month of January
 it holds 31 days
 and 30 nights
 the day holds eight hours
 and it is dark for 16 hours
 then in the month of January
 all trees are strong
 it is necessary that we will take care of
 so they do not fall [over]
 in this time of year, appear/come out

yn ixquich xochicualcuahuitl
 ca cenca cualcan no ycuac mahuiliz
 yn xocomecatl
 no yhuan ynixq[ui]ch cuahuitl
 ynic mochi ytzmoliniz
 ca yquac pehua mitlatzmolini
 no ycuac huel motoca
 yn quilxinachtli yn lechocas
 no ycuac ypan **enero:cualcan**
 yeca cuali ynieliz amo cocolizyo
 ycuac moneq neçobalos yn tomac
 yhuan tocxī ynizquican huelneço
 yhuan huel ipan p[...]tli mizqui
 yn tlacamo huelic yn tlaq[ua]lli nima patli mizqui
 no huel netemalos nicchicahuaz ynic pantiz
 Tonacayohuan
 yn iq[ua]c hohontlaqualoc
 Amo nequi nimā timoquetzaz
 ynic amo moyolmoyahuaz
 quitosnequi ynicamo telmoyahuaz
 ocmoqui tatlia
 Etss.

all fruit trees
 it is a good time of year to spread
 the grape
 and all trees
 will grow
 then everything will sprout anew
 then [is the time] to sow the seeds of
quilitl [herb in general] and lettuce
 and when in the month of January: a good place
 it is a good state of being, it is not among illness
 [illness] will not spread to our hand
 and our feet and appear everywhere
 take medicine in order not to die
 if the food is not good, here medicine, it will die
 also, bathe yourself, it will strengthen
 our body

you do not have to kneel
 to not drift away with your thoughts
 that is, you will not be disgusted

Etc.

Month of March

[f. 48r]
 [Initial] In metztli março
 quipia çenpohualli omatlactli omce ylhuitl
 Auh yehuatl Cenpohualli omatlactli yohualli
 ytlaca quipia horas matlactli omome
 Auh yohualli matlactli horas
 yn iquac: ipan metztli **Março**
 yquac monequi yelimicohuaz
 mohuilmitlazqu[e] yn çacatl
 yn ce[n]cā huihuitzo

 yn iuhqui huel intech monequi ytlalchiuhque
 ynic cencā qualcan qualtiyaz
 totonic yn tlali
 ynic no huelamatiz
 mochihuaz yn ixquich xochiquil qualhuitl
 @yq[uac] ynpā metztli **Martios** qualcan
 yehica yqualli yn iyeliz
 çan itechpa ytlacauhtica
 ynīn tonacayo cocoliztli
 quimaca yehica çenca çoçotlahua yntonacayo
 yn iquac ypan metztli y [f.49v]
 yn ayac monequi ytech açiz yn ixqua

the month of March
 holds 31 days
 and 30 nights
 the day holds 12 hours
 and the night ten [two are thus missing]
 when it is in the month of March
 it is necessary to plow
 in straight lines [from here to there] the grass
 the great *mazorcas* [roots of grass will pop up after
 plowing]
 it is necessary for us to make [prepare] the land
 it will be ready early during the day
 [as otherwise it is] very hot on the land
 so we will know it
 they will 'do' [work with] all fruit trees
 when in the month of March, it is a good place
 it has a good state of being
 we have to pray or ask
 to keep our body from an illness
 because our body will faint
 when it is this month
 for the illness not to arrive at our head

Anoço quìma toca tinemiz
 ynic amo çoz yn itzontecon
 amono aca ytech açiz
 yn inacaz ynic amo quicocoz
 can oc ye cencā timotemaz
 yn iquac timaltiz
 ayac yq[ua]c quiximaz yn itentzon
 yhuan amono ac[a] moçohuaz yn imac yn icxi
 @yq[ua]c cenca mococohua totzontecon
 yhuan tonacaz

[...] we will live
 so the head will not bleed
 nor will it arrive with anyone
 to its body so it will not be ill
 we will bathe ourselves plenty
 when we will bathe
 we will no longer shave its hair
 it will not spread to its hand and its foot
 when our head is very sick
 and our ear

Knowing the structure and content of the discussions of the twelve months, I will now focus on the agricultural treatise within each of the discussions. For the sake of completeness, January and March will be included in the overview below:

January:

[f.47v] [...] *jauc ypan metztli Enero*
yn ochi [f. 47r] *cahuac yn ixquich quahuitl*
monequi ticcentlacuicuilis
yn yehuatl ynohuetz
yn ixihuah ye monequi ycuac maquis
yn ixquich xochicualcuahuitl
ca cenca cualcan no ycuac mahuiliz
yn xocomecatl
no yhuan ynixq[ui]ch cuahuitl
ynic mochi ytzmoliniz
ca yquac pehua mitlatzmolini
no ycuac huel motoca
yn quilxinachtli yn lehocas

then in the month of January
 all trees are strong
 it is necessary that we will take care of
 so they do not fall [over]
 in this time of year, appear/come out
 all fruit trees
 it is a good time of year to spread
 the grape
 and all trees
 will grow
 then everything will sprout anew
 then [is the time] to sow the seeds of
quilitl [herb in general] and lettuce

February:

[f.47r]
 [Initial] *In metztli febre*
quipia Ce[n]pohualli ochicuey ylhuitl
Auhui yohualli quipi[a]
 [f.48v]
Cenpohualli omatlactli ocē:
Auh ytlaca quipia matlactli horas
yohualtica Cenpohualli onahui horas
yn ipani yn m[e]tztli :febre:
yquac monequi mocentlacuicuiliz
yn xocomecatl yhuā yn ixquich: xochiquahuitl
no yquac maq[ui]z yn xocomecatl
no yquac motocaz yn Castillanayotl

the month of February
 holds 28 days
 and the night holds
 31
 and daytime holds 10 hours
 at night there are 24 hours
 in the month of February
 it is necessary to take
 the fruit rope of all fruit trees
 then it will escape the fruit rope
 then it will sow Castilian items

yhuan pepinas
[in] yn iquac yn ipan metztli huelniquaniz
Anoço yq[ua]c mahaquiz y[n] naxxanJas
yhuan limones yhuan limas yhuan çidras
yhuan Ravanos
yxquich maquiz in quahuitl
yhuan yquac quauhçaloloç²²¹ [...]

and cucumbers
when in the month, I will eat good
may they rise, the oranges
lemons, limes, citrons, cidres
and radices
all trees will need
to be grafted

March:

[f.48r] yn iquac: ipan metztli **Março**
yquac monequi yelimicohuaz
mohuilmitlazqu[e] yn çacatl
yn ce[n]cā huihuitzo

yn iuhqui huel intech monequi ytlalchiuhque
ynic cencā qualcan qualtiyaz
totoxic yn tlali
ynic no huelamatiz
mochihuaz yn ixquich xochiquil qualhuitl

when it is in the month of March
it is necessary to plow
in straight lines [from here to there] the grass
the great *mazorcas* [roots of grass will pop up
after plowing]
it is necessary for us to make [prepare] the land
it will be ready early during the day
[as otherwise it is] very hot on the land
so we will know it
they will ‘do’ [work with] all fruit trees

April:

[f.49v] yn ipan metztli aprilis
no yq[ua]c huel ipā maquiya
yn occequi xochiquilquahuitl
Auh yn tlacate yn mohuilohuā oncan
nipan tiquimanaz
yn ytepitoton moxinchhuan yezque
yhuā yn [o]c cequime yn yolime ynemitiloni
Auh [i]n iquac yn ipan metztli **Aprilis**
Ayac [f.49r] Ayac hueliquac mocaltiz
ytlacopehualtiz
yn ical Amo chicahuac yez
çan itlacahuiz xitiniz
Amo no huel mopixoz yntla quilxinachtli
yeyca amo no huel mochihuaz [...]

in the month of April
we take care of
some fruit trees
everyone is going there
there we will spread it
our small seeds will be
refined things are around
when in the month of April
it is no longer possible to build oneself a house
to build a part of a house
its house will not be strong
it will just collapse
also we will not take the *quilitl* seed
because we are not able to

²²¹ *Quauhçaloo* is a combination of *quauh* ‘tree’ and *çaloo* ‘to glue.’ Here we see the verb as passive (-lo) and in the future tense (-z). There are several methods for grafting trees, all of which are carried out for the purpose of strengthening a tree or a plant (in this case fruit trees). A branch is cut off slantwise from a young tree (up to one year old) and placed in the slant incision of an older and stronger tree of the same kind, and is held in place by wax and a piece of string. Eventually, the new branch grows into the trunk permanently. By doing so, the selected preferred branches that are to carry fruit are able to absorb more water and nutrients from the new trunk as their original smaller and weaker one could have – a process of selecting the best characteristics possible. The best time of year for grafting is early spring.

May:

[f.50v] *yn iquac ypan metztli*
yquac monequi yn ichcame ximalozque
yehica Amo yectli yn iyeliz Ca cocolizço
occēcan yn cacal yn ichcame

when in the month
it is necessary to shave the sheep
its state of being is not good, its among illness
[in] all [lit: other things] houses of sheep

June:

[f.50v] *Auh yn iq[ua]c monequi quauhcaloloz*
*yehuatl yehuatl [sic] yn toca *Peraies* [f.50r]*
Anoço membrillos Anoço toraznos mançanos
yhuan yn ipan metztli yquac monequi
huelipan tictocaz yn caxtillā tlaoli

and then it is necessary to be grafted
that which is named pear
or quince, or apples
and when in this month, it is necessary
it is time that we will sow Castilian maize
[read: wheat]
and cabbages, and radices, and lettuce
and when in June
he will prepare its land in some part
begin far away

yhuan colles yhuan Rauanos yhuan lechocas
no yquac ypan Junio
ytila ycan ypan canapa yaz nequiz
yn hueca yquac hopehuaz²²² [sic]

July:

[f.51v]
yn ipan yn metztli
yq[ua]c monequi tictocaz yquilxinachtli
seed of *quilitl*
coles lechocas Rauanos

in the month
then it is necessary that we will sow the

cabbages, lettuce, radices

August:

[f.51r]
yquac tictocaz yquauhxinachtli
yn aJus yhuā Avast yhuan cevollas trigos
yn occequi xinachtli

then we will so the [wood?] seeds
of garlic and onions, wheats
and some more seeds

September:

No information on agriculture.

²²² While reading the text together, Raul Macuil Martínez explained to me that this translation should be taken as a piece of advice – a *consejo* – to prepare the land (*milpa*) starting at the far end and working your way towards the patch closest to home.

October:

[f.52r]

yn ipan yn metzli yq[ua]c
monequi ticcencuicuiz
Ticcennechicoz
yn omochiuh yn ixquich yn xochiqualli
yn granadas y[n] membrillas y[n] mançanas
yn beras yn yerexquich yn xohiquali
yn itech mochihua yn itlaquillo
yq[ua]c mocentequiz
ynic moquaz

in the month then
it is necessary that we will get ready
we will have to collect something
it is necessary for all fruit trees
granades, quinces, apples
pears and all the fruit
it is necessary for us to chalk [them]
when we will cut one
in order to eat it

November:

[f.53v]

monequiz tihuahuaquiz

ça yehuatl ynohuetz yn ixihuahyo
yn ixquich quahuitl
yq[ua]c ticaquiz
ycidxa yhuan [f.53r] naxayas yn limones
yhua limas

it will be necessary that we will
dry/diminish/shrink it
and also the herbs will fall
[of] all trees
then we will understand/hear it
cider, and oranges, the lemons
and limes

December:

yn ixquich xochiquahuitl no chicahuac
monequi ticcentlacuicuilizque
yehuatl ynopehuaz
yn iquitzmolinitz yn ixihuahyo

all strong fruit trees
it is necessary that we will collect them
also herbs [ixihuahyo] will begin
to sprout

From the Nahuatl text in comparison to the Spanish *reportorio*, we can conclude that the advice on agricultural activities throughout the twelve months is not so different from the Spanish almanac. This seems to suggest that the aim was not so much to use the almanac in a practical sense, but, rather, to relate to agriculture in a general sense – and more so, to agriculture as it was referred to in a well-known text from another part of the world.

6.7 Concluding remarks

Izcatqui showcases that there was a Nahua interest in alternative ways of explaining illness and curing them. The text represents sixteenth century theory on the influence of celestial bodies on the human body, not only as a cause for sickness but also as instrumental in deciding on the right time to carry out certain healing practices. The Nahuatl text goes beyond the image of the Zodiac Man and two Vein Men that were traditionally part of a *reportorio*. In fact, even a first century AD encyclopedic work, a masterpiece of centuries of efforts of translation itself, found its way into the Nahuatl text. The Spanish

translation of Dioscorides' work originates from the mid-sixteenth century. From Juan de Cardenas' remark in his *Problemas y secretos maravillosos de las Indias*, Dioscorides was a name that (at least a certain group of) people were acquainted with in colonial Mexico in the sixteenth century. Although Izcatqui was produced in the eighteenth century, its content was probably produced much earlier and to my understanding it is the only document in an indigenous language that refers to Dioscorides. Perhaps the *tlacuiloque* of Izcatqui were already familiar with the Spanish translation of Dioscorides' work. If not, this was to them a first exercise in selecting whatever they saw fit to include in the Nahuatl manuscript. They decided not to write about the person of Dioscorides, his life, and his writing in general. Instead, they selected certain recipes from his work. If we consider ms 3523-2 as a whole, therefore, it very much resembles the Mayan corpus of the Chilam Balam books that also include translated interpretations of a *reportorio*. These books too are a combination of content from a Spanish almanac and medicinal information that goes beyond the *reportorio* – recipes from either local or New World origin.

The fragments on agriculture illustrate that the *tlacuiloque* probably did not have using the manuscript in everyday life on the field. Thus, I believe that this text is a prime example of an interest in 'the other.' This interest was not so much in describing the differences between the local and far-away, but in describing how people somewhere else in the world deal and dealt with issues that we all face, including, for instance, planning agricultural activities. The substitutions of certain animals, plants etc. with Nahuatl alternatives grounded in local ecology would trigger a Nahua reader to recognize the general intent of the Spanish source text.

Conclusion

This dissertation has focused on one central research question: what is the content of ms 3523-2? This research question has been further specified to the following sub-questions:

- 1) Content: which source(s) lie at the foundation of Izcatqui? Is a reconstruction possible of how it or they were selected? In which context was Izcatqui produced?
- 2) Text: how were words converted from one language into another? Are there terms that do not exist in one of the two languages? And, if so, how is this resolved?
- 3) Cultural translation: are there signs of cultural terms and/or practices translated that are unfamiliar within one of the two cultural framework?

A secondary research question has been: why was ms 3523-2 described as being an important piece by curators of the Tropenmuseum, the museum where the manuscript currently resides?

I am not the first to study the Izcatqui manuscript, however, it had never been studied in its totality before. The previously conducted research had established that the main source of Izcatqui is a sixteenth century Spanish *reportorio de los tiempos* by Sancho de Salaya (Spitler, 2007). My investigation has confirmed that the *tlacuiloque* of Izcatqui to a large extent worked with the almanac of this editor. This particular almanac is the tangible product of developments in, for instance, time reckoning for religious purposes, agricultural activities, medicine, and astrology. It was a book that functioned as a theoretical framework for the aforementioned themes, which served as a practical guide for clerics, physicians, and farmers alike.

As for the reconstruction of Izcatqui, this study has shown that this is a much more complex issue. Although superficially the text seems to have been copied from a single *reportorio*, my detailed study of the combination of text and image seems to suggest something else. None of the *reportorios* that I have studied have the exact same combination of text and visual information. Rather, the outcome seems to suggest that somewhere in the making of the Nahuatl translation, different sources were consulted and the texts and images from different editions of these *reportorios* were selected.

Moreover, in addition to *reportorios*, other sources were consulted and added to the almanac folios. The first ten folios are of a religious nature which is not part of the *reportorio* genre. The first 9 folios have a descriptive nature; they explain how Pope Gregory XIII extended the Holy Bull of the Holy Crusade – which granted indulgences to those who fought for the Christian faith – to the Indies. These folios also inform the reader about periods and days throughout the year during on which confession is appropriate. From folio 10r onwards, however, the reader is no longer informed about any religious content, but is asked to actively be part of that religious content through gestures and speech. For example, the reader is invited to recite prayers from the Divine Office and, in doing so, to attest to his/her acceptance of a ritual belonging to Christianity. These prayers give the text a formal character. Their importance, therefore, perhaps lay not so much in their textual content, but in the rhythm and religious formula of the recitals they made possible.

Thus, I can conclude that the structure of the first ten folios of Izcatqui is well thought out; it introduces Christianity, while offering the reader salvation through a fixed set of days and prayers that

will lead to absolution. The religious character of the text found in the *reportorios* justified translation and inclusion in the almanac. At least one of the purposes of ms 3523-2 was to clearly establish a Christian mindset that was definitive of the culture in which the Spanish almanac originated. Although the corpus of Christian texts in Nahuatl is quite abundant, the reference to the Bull of the Holy Crusade is a rare one and adds to the uniqueness of the manuscript.

The folios on religion point to a certain context in which ms 3523-2 was created and read. According to the information available at the Tropenmuseum, the manuscript was used for educational purposes and is supposedly written by Spanish clergymen to instruct “Aztec noblemen.” Izcatqui contains a variety of methods to calculate the celebrations of Catholic feast days. These methods also appear, for example, in a Dutch textbook from 1436 by a certain Magistri Jacobi. His book served the purpose of teaching young clerics how to calculate dates in the liturgical calendar. Local bishops or priests of communities were expected to have knowledge at hand to calculate the dates of specific Catholic feasts, so they could pass this on to local communities. They were aided in the difficult task by a variety of devices for calculating dates and finding the correct week day of a feast. These included verses, to be counted on the phalanxes of both hands, in combination with circular diagrams to keep the mathematics in line with leap years. The young clerics also had to learn the mathematics of the 19-year lunar cycle of the Aureus Numerus and the Dominical Letter - this was no easy task. The presence of these mnemotechnic devices in ms 3523-2, then, clearly indicates that the manuscript was indeed used to teach young men how to undertake the necessary calculations to correctly organize the liturgical calendar for the upcoming year. These devices are not present in the *reportorio* by Sancho de Salaya and so I have argued that the *tlacuiloque* probably consulted a work similar to the one by Magister Jacobi. This seems to suggest that ms 3523-2 served a purpose that went beyond a pure translation of an almanac.

A third source that I have argued was consulted was a medicinal treatise from the Greek scholar Pedianus Dioscorides, who lived in the first century A.D. His work entailed a collection of recipes with local herbs and other therapies from the Mediterranean area. Considered an authority for centuries, his work was translated into Spanish by Andrés de Laguna in 1555. Izcatqui is the only indigenous text that I have come across that refers to Dioscorides, again a unique trait of this manuscript. This study has thus demonstrated that the corpus of documents that found their way into this remarkable manuscript went beyond the genre of the *reportorio*: the information contained in Izcatqui combines a religious document (Bull of the Holy Crusade) with a textbook on the mathematics of the liturgical calendar and a first century A.D. treatise on medicine. And, although not explicitly mentioned in Izcatqui, its *tlacuiloque* were probably also familiar with other colonial sources on religion and medicine as well.

The context in which the document is produced must be considered in different moments in time. First, the manuscript can be dated in a single year in which it was produced (1758) and second, when its content was translated at first. Given the content and grammar of the Nahuatl as well as the amount and nature of Spanish loan words, the manuscript seems to be a copy of a much earlier text. The earlier text probably dates somewhere between 1583 and the first quarter of the seventeenth century. Now, the books of Chilam Balam (in their present form) were also produced (or copied and/or elaborated) in the second half of the eighteenth century or even later. So together with Izcatqui they prove there was an indigenous interest in what may have seemed to be ‘old fashioned’ texts. In addition, it is possible that the manuscript found in the Tropenmuseum was copied from an earlier text as a collector's item as well. If we consider that the content of Izcatqui originated in the late sixteenth century, we must take the following into account. The practice of astrology and documents concerning this field were being monitored by the Holy Office, the institution responsible for filtering out practices that were not in accordance with the prevailing message of the Catholic Church. Several individuals were put to trial for having practiced astrology or for keeping sources on the matter in the period 1582-1654. The Council of Trent implemented measures in the sixteenth century that aimed to prevent the circulation

and possession of unauthorized copies of religious or devotional works. The Tridentine measures – as they were called – were bypassed by some readers through underground distribution of copies. Izcatqui could well have thrived within that same, illicit system.

The corpus of translated *reportorios* in indigenous languages is not large. However, their existence of surviving texts in various languages (Nahuatl, Otomí, and Yucatec Maya) is illustrative of what probably was a much larger corpus at one moment in time. In addition, we can conclude from this small corpus that the scribes selected specific information from a *reportorio* (rather than copying a complete almanac) that they saw as fitting their product, intention, and/or personal interest. The earliest known indigenous copy of an almanac appears in a Doctrina Christiana from 1553, and the handwritten fragments from a *reportorio* seem to date to the same period. My claim, then, is that the *tlacuiloque* who devised ms 3523-2 were mainly interested in the agricultural and astrological advice. The scribe of Codex Huichapan – the description of which provides the only reference to the almanac in the language of Otomí – has clearly consulted a *reportorio*, but without any efforts to convey any of the type of information that it contains. Rather, he is interested in the names of the months and the amount of days each month holds, and so this indicates that his aim was primarily to establish a correlation with the indigenous calendar in the language of Otomí. The same is true for Codex Mexicanus, where images of important Christian religious days are connected to – now erased – dates within the indigenous calendar. Other pages of Codex Mexicanus, together with those of Fonds Mexicain 381 and the Chilam Balam books, so accurately re-present content from a *reportorio* that the translators must have carefully read them and selected fragments for the purpose of conveying what they deemed to be important information from the Spanish almanac. What they have in common, together with Izcatqui, is that the *reportorio* genre is incorporated into a miscellaneous work.

Furthermore, the above-mentioned corpus has illustrated the longevity of interest in the type of information contained in the Spanish almanac. This interest is present from the early years after the arrival of the Spanish in Mexico and continues for well over three hundred years. This is evidence of a strong intellectual indigenous group of people, a group that deserves more attention.

The efforts of the group of indigenous people that read, discussed, interpreted, and translated the texts that ended up in Izcatqui – as well as those who copied it in the eighteenth century – were truly remarkable. I argue, therefore, that Izcatqui's *tlacuiloque* were well-educated people that worked within a religious and educational context. They were, indeed, forced to accept a new religion and a new calendar amongst other things. However, they were also well-read and interested in what 'the other' (in this case, the Old World) had to offer them. New ways of conceptualizing the world, new ways to divine and to use guidance in hard-felt times, and new approaches towards curing and *consejos* for agriculture were all of interest to them. Thus, Izcatqui is a text that was designed to explain, in a local language that had still managed to withstand the competition from Spanish, how the world functioned and continued to function, even if the world order had changed.

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Appendices

Appendix A: transcription of the petition by Carlos de Sigüenza y Góngora to publish his lunario and prognostication for the year 1679. Fragment in Archivo General de la Nación, Mexico City. Inquisicion (61), Vol 670, 1678, exp 20, page 347r.

Don Carlos de Siguenza y Gongora Presbitero Cathedratico
proprietorio de Mathematicas en esta R[eal] Universidad=
Dice que tiene dispuesto el Lunario y pronostico de temporales
para el año por vendidero de 1679 y para poder darlo a lus
estampas

A Us[tede]s Pide y supa que constando no tener cossas
alguna contra la Fe, Disposiciones Pontificios y mandatos deste
S[an]to tribunal, mande se le despache licencia en la forma acos-
tumbrada para q[ue] se imprima en que receuira m[e]r[ce]d

Carlos de Siguenza y [signature]
Gongora

Appendix B: transcription of the recommendations of the first friar who read the lunario and prognostication for the year of 1679 by Carlos de Sigüenza y Góngora [1678].
Fragment in Archivo General de la Nación, Mexico City
Inquisicion (61), vol 670, 1678, exp 20, page 347r-347v [page itself is erroneously numbered 354v]

Muy illustre Señor

Por mandado de u[ste]d he leído el prognóstico del año que
viene de [16]79. compuesto por D. Carlos de Siguenza y Gon-
gora, Cathedratico de la facultad en la Universidad
de Mexico = mi sentir es que el el folio 1. parafo 2 a
blando de los Eclipses tiene una proposicion, que se deve
explicar: porque dise assi como puede aver gozo entre
nieblas, que niegan a los mortales las celestes luus
esta proposion es impropia, y equivoca. Impropia
porque las nieblas no niegan la lus, sino que lo
impiden, y en este sentido y no otro ablo tobias que
do dixo intenebris sedeo et lumen egli non video
= Es tambien equivoca la proposion, porque las tiniebl[as]
solo impiden la lus material, y el termino del
autor que es luus celestes dise mas que lus mater[ial]
(ablando en todo rigor). no dudo que [sera este] [illegible]

del autor, pero aviendo de comer el pronostico [illegible]
 [next folio] tantos item varios juicios podra ser que lo confundo
 alguno, dexandose llevar de la mala intelligencia,
 assi (siendo u[ste]d servido) se podra mandar que diga.
pero como puede aver gozo entre tinieblas que impide
a los mortales la lus dia
 = item en el mismo parrafo al fin, haciendo juicio del añ[o]
 y queriendo distinguir los avidentes necesarios de los con
 tingentes: diste assi (ablado de los necesarios) se conspira
lo in fausto de los Eclipses anuestro daño nadie duda
 que el Eclipse es avidente necesario: pero que ame[nudo]
 daño necessariamente, ni se deve, ni se puede pre
 nunciar por cossa cierta, sino por mui contingente
 y assi pues eneste parrafo abla de los avidentes necesarios
 debera desir que los eclipses se pueden conspirar anuestro
daño, y coneso savra el que leiere, que el daño que pre
 viene es solo contingente y no necesario = este es mi
 pensar [?] en lo que toca a esta parte en lo temas no allo
 cossa que se oponga anuestra s[an]ta fee y buenas costum
 bres salvo esta tanto en este año consento real
 de Mexico S[an]to Domingo 22 de septiembre de [16]78 a[ños]

Ant[onio] leal de Arujo [?]

Appendix C: transcription of the recommendations of the second friar who read the lunario and
 prognostication for the year of 1679 by Carlos de Sigüenza y Góngora [1678].
 Fragment in Archivo General de la Nación, Mexico City
 Inquisicion (61), vol 670, 1678, exp 20, page 347v [page itself is erroneously numbered 354v]-348r

Muy illustre señor.

He visto por mandado de Us[te]d el Lunario y Pronostico dispuesto pa[ra] el año
 que viene de [16]79 por D. Carlos de Sigenza [sic] y Gongora Cathedratico
 propietario de Mathematicas en la R[ea]l Univers[ida]d deesta Corte=Mi
 sentir es, que aunq[ue] en el folio 1 parrafo 2 en q[ue] trata de los eclipses, dice
 esta proposiçion: Pero como puede auergozo entre tinieblas, que niegan a los
mortales las celestes luces? y en ella no habla con propiedad diciendo que
 las tinieblas niegan las luces, no es mas q[ue] impropiedad en el rigor de
 terminos de Filosofia, q[ue] llama a las tinieblas priuacion, y na negacion
 de luz: y assi no siento en esta parte materia, que pueda ser ofensiva al
 a n[uest]ra S[an]ta fee, y buenas costumbres_____

iten tampoco siento auer en la d[ic]ha proposiçion equivoacion alguna quando
 diçe, que las tinieblas niegan a los mortals las celestes luces, pues siendo
 constante, que va hablando especificamente del efecto natural de los eclipses
 y las tinieblas, q[ue] causan, sufficientem[en]te esta determinadada la locucion a que
 se entienda decirlo por las luces materiales de el sol, y no por las espiri
 tuales, o sobienatumbes, y en este sentido pareçe hablar el author como

se infiere del parraf immediato en el mesmo fol. 1 donde explicando el primer eclipse, dice: Mayo obscuracion et[ce]t[er]a y negandosenos del cuer po solar digitos et[ce]t[er]a, con que mi parecer es, que puede quedar corriente toda la d[ic]ha proposiçion, sin riesgo de ofensa en la siniestra intelli gençia de ella _____

iten al fin del mesmo parrafo 2 donde señala los que son accidentes nece [next page] sarios en el cielo, en la prediccion de los eclipses previniendo los daños que amenazan, diçe: se conspira lo in fausto de los Eclipses anuestro daño: Y siendo la predicçion absoluta, y el Juicio, que hace en d[ic]ho parrafo espeçial de solo los efectos, y accidente, q[ue] son necesarios, y no contingentes, de q[ue] instituye despues distinto parrafo; parece quedar tambien comprehendidos en esa predicçion dichos daños, o efectos de los eclipses, q[ue] son impedibles, y contingentes, aunq[ue] su causa sea necesaria. Y no obstante, q[ue] el author lo Reconoçe assi en el fol. 3. §. 8. diçiendo: Porq[ue] aunq[ue] el eclipse de sol pudiera causar algunos yelos, estar= uaralos la detencion de las aguas et[ce]t[er]a conformandome en este capitulo con la censura de arriba, y porq[ue] alguno no yerre contandose, o prenun= ciandose los efectos dañosos de los eclipses entre los q[ue] son necesarios, y los juzgue que por inevitables como lo son sus causas. Siento, que (siendo Ust[ed] servido) dicha predicçion absoluta quanto a lo q[ue] ame naça de daño se deue modificar de suerte q[ue] se entienda quedar este en su naturaleza de efecto puramente contingente: diciendo se puede conspirar lo infausto et[ce]t[er]a Este es mi sentir en lo que toca a esta parte, en lo demas, no siento cosa, q[ue] desdiga o sesponga a n[uest]ra S[an]ta fee o a las buenas costumbres. Saluo et[ce]t[er]a f[ec]ho en este Conv[en]to R[ea]l de n[ues]tro P[adr]e S[an]to Dom[in]go de Mex[i]co en 25 de Sept[iembr]e del 1678

Fray Aug[usti]n Dorantes [signature]

Appendix D: authors who asked the Inquisition permission to print lunarios, prognostications and almanacs in the seventeenth century. I have transformed the text by Burdick (2009) who in turn used the work by Quintana (1969) into a table.

Nr	Year	Author	Title
#1	1604	Enrico Martínez	Lunario y Regimiento de Salud
#2	1606	Enrico Martínez	Reportorio de los tiempos
#3	1649	Felipe de Castro	Lunario y Repertorio de salud para el año venidero de 1649
#4	1649	Gabriel López de Bonilla	El Diario y Discurso Astronomico para El Año que viene de 1649
#5	1651	Francisco Ruiz Lozano	Reportorio annual para el reino de Mexico. Por el Capitan Francisco Ruiz Lozano
#6	1652	Francisco Ruiz Lozano	Reportorio annual para el reino de Mexico. Por el Capitan Francisco Ruiz Lozano

#7	1653	Juan Ruiz	Reportorio
#8	1656	Gabriel López de Bonilla	Lunario y discurso Astronomico para El Año que Viende de 1656
#9	1659	Juan Ruiz	El Pronóstico del Año de 1659
#10	1660	Juan Ruiz	El Pronóstico del Año venidero de 1660
#11	1661	Juan Ruiz	El Reportorio del Año venidero de 1661
#12	1662	Martín de Córdoba	El Pronóstico y Lunario de temporales para 1662
#13	1662	Gabriel López de Bonilla	Diario y Discurso Astronomico para El Año de 1662
#14	1663	Martín de Córdoba	El Pronóstico de Temporales para el ano que viene de sesenta y tres
#15	1663	Garbiel López de Bonilla	Diario para 1663
#16	1663	Juan Ruiz	El Lunario y Regimiento de salud para el año que Viene de mil y seiscientos y sesenta y tres
#17	1665	Martín de Córdoba	El Pronóstico para el año Venidero de sesenta y cinco
#18	1665	Gabriel López de Bonilla	Diario y Discursos Astronomicos segun la Reuolucion y Ecclipses desde Año que Viene de 1665 [...]
#19	1665	Juan Ruiz	El lunario, Regimiento de Salud, y Pronóstico de los Temporales del Año venidero de 1665
#20	1666	Martín de Córdoba	El Lunario, y Pronóstico de temporales para el año de 1666
#21	1666	Gabriel López de Bonilla	El Diario y Discursos Astronomicos para El Año que Viene de 1666
#22	1666	Juan Ruiz	Lunario, Regimiento de Salud, y temporales del Año de 1666
#23	1667	Gabriel López de Bonilla	Diario y Discursos Astronomicos fecho por Gabriel Lopez de Bonilla Vez. desta Ciudad de Mexico de la Nueva España [...]
#24	1667	Juan Ruiz	El Pronóstico del Año venidero de 1667
#25	1668	Gabriel López de Bonilla	Diario y discursos astronoimcos para el año 1668
#26	1669	Juan Ruiz	El Lunario, Regimiento de Salud, y Pronóstico de temporales del Año venidero de 1669
#27	1670	Nicolás de Matta	Lunario y pronóstico de temorales para el a[ñ]o que Viene de seiscientos y settenta
#28	1670	Juan Ruiz	El Pronóstico del Año venidero de 1670
#29	1671	Carlos de Sigüenza y Góngora	El Lunario y Pronóstico de temporales para el Año de 1671
#30	1672	Carlos de Sigüenza y Góngora	El Lunario y pronóstico de temporales del año que biene de 1672
#31	1673	Juan Ruiz	Pronóstico del Año Venidero de 1673

#32	1673	Juan de Saucedo	El Juico astronomico de el año proximo venidero del 1673
#33	1673	Carlos de Sigüenza y Góngora	Lunario del año que viene de 73
#34	1674	Juan Ruiz	Lunario de el Año venidero de 1674
#35	1674	Juan de Saucedo	El Pronóstico para el año que viene de setenta y quatro
#36	1674	Carlos de Sigüenza y Góngora	El Lunario que pasa el año venidero de 1674
#37	1675	Carlos de Sigüenza y Góngora	El lunario y pronóstico de Temporales para el año Venidero de 1675
#38	1676	Feliciana Ruiz	El lunario, Regimiento de Salud, y Pronóstico de temporales, del Año venidero de 1676
#39	1676	Carlos de Sigüenza y Góngora	Lunario para el año venidero de 1676
#40	1677	Juan de Saucedo	El pronóstico para el año que viene de setenta y siete
#41	1677	Carlos de Sigüenza y Góngora	El Lunario para el año de 1677
#42	1678	José de Escobar Salmerón y Castro	El Lunario y regimiento de Salud Con el pronóstico delos temporales para el año que Viene de 1678
#43	1678	Carlos de Sigüenza y Góngora	El pronóstico para el año venidero de 1678
#44	1679	José de Escobar Salmerón y Castro	Lunario y regimiento de Salud para el año que viene de 79
#45	1679	Carlos de Sigüenza y Góngora	Lunario y pronóstico de temporales para el año de 1679
#46	1680	José de Escobar Salmerón y Castro	El lunario y regimiento de Salud para el año que viene de 1680
#47	1680	Carlos de Sigüenza y Góngora	El Lunario y pronóstico de temporales para el año proximo venidero de 1680

#48	1681	Carlos de Sigüenza y Góngora	Lunario para 1681
#49	1682	Antonio Sebastián de Aguilar Cantú	Pronóstico de los Temporales de el Año de Mil, seiscientos y ochenta y dos
#50	1682	José ²²³ de Escobar Salmerón y Castro	El Lunario y pronóstico de temporales del año que viene
#51	1682	Carlos de Sigüenza y Góngora	El Lunario y pronóstico de temporales para el año venidero de 1682
#52	1683	José de Escobar Salmerón y Castro	El Lunario y pronóstico del año que viene de 83
#53	1683	Carlos de Sigüenza y Góngora	El Lunario y Pronóstico de temporales para el año vendidero de 1683
#54	1684	José de Escobar Salmerón y Castro	El pronóstico o Lunario de los temporales, y guarda de Salud con sus medicinas segun indican los Astros el año que viene de 84
#55	1684	Carlos de Sigüenza y Góngora	Repertorio
#56	1685	Carlos de Sigüenza y Góngora	[Almanaque] ²²⁴
#57	1686	Juan de Avilés Ramírez	El Pronóstico de Temporales con las Elecciones de Medizina y Navegaciones del año que viene de mill [sic] seiscientos y ochenta y seis
#58	1686	Carlos de Sigüenza y Góngora	El pronóstico para el año que viene de ochenta y seis
#59	1687	Antonio Sebastián de Aguilar Cantú	El Pronóstico para el año que viene de ochenta y seis
#60	1687	Juan de Avilés Ramírez	Pronóstico de Temporales para el año, que viene de 1687

²²³ The text itself uses the name 'Joseph' and not 'José' (Burdick 2009:254)

²²⁴ Here I follow Burdick (2009) who added years for which there is no record in the AGN that de Sigüenza y Góngora asked permission to print his work. However, in the 1690 almanac the author states that 'that almanac makes twenty in so many years' (Burdick 2009:261). This seems to imply that he did so for the intermediate years as well.

#61	1687	José de Campos	El Pronóstico para el Año que viene de ochenta y seis
#62	1687	Carlos de Sigüenza y Góngora	[Almanaque]
#63	1688	Juan de Avilés Ramírez	Pronóstico de Temporales para el año que Viene de 88
#64	1688	José de Campos	Pronóstico de Temporales para 1688
#65	1688	Carlos de Sigüenza y Góngora	El Pronóstico y Lunario para el año de 1688
#66	1689	Antonio Sebastián de Aguilar Cantú	El Pronóstico para el Año que viene de Ochenta y Nuebe
#67	1689	Juan de Avilés Ramírez	Pronóstico de Temporales, para el año que Viene de Mill, Seiscientos, y ochenta, y nueve
#68	1689	José de Campos	El Pronóstico para el Año que Viene de Ochenta y nueve
#69	1689	Carlos de Sigüenza y Góngora	El Lunario para el Año venidero de 1689
#70	1690	Antonio Sebastián de Aguilar Cantú	El Pronóstico de los Temporales de el Año de mil seiscientos noventa
#71	1690	Juan de Avilés Ramírez	El pronóstico de Temporales para el año que viene de mil, seiscientos, i noventa
#72	1690	Carlos de Sigüenza y Góngora	Almanaque Para el Año de 1690
#73	1691	Antonio Sebastián de Aguilar Cantú	El Lunario y Pronóstico de los Temporales de el Año de Mil Seiscientos y Nouenta y vno
#74	1691	Juan de Avilés Ramírez	El Pronóstico de Temporales para el año que Viene de Mil, Seiscientos, y Nouenta, y vn años
#75	1691	Carlos de Sigüenza y Góngora	El Almanaque para el Año de 1691
#76	1692	Antonio Sebastián de Aguilar Cantú	PRONOSTICO De los Temporales de el Año Bisiesto De 1692 [...]
#77	1692	Juan de Avilés Ramírez	Pronóstico de Temporales Con las elecciones de Medicina, Phlebotomia Agricultura, Nauegacion, Segun loque indican los mouimientos de los Astros, Este año de 1692 [...]

#78	1692	Carlos de Sigüenza y Góngora	Almanaque de D.C.d.S.y.G. Para el año de 1692
#79	1693	Antonio Sebastián de Aguilar Cantú	El Pronóstico de los Temporales de el Año que viene de Nouenta y tres
#80	1693	Juan de Avilés Ramírez	El Pronóstico de Temporales para el año que Viene de Nouenta i tres
#81	1693	Carlos de Sigüenza y Góngora	Almanaque de D.C.de S. para el año de 1693
#82	1694	Carlos de Sigüenza y Góngora	ALMANAQUE Y LUNARIO de D.C. de S. y G. Para el Año de 1694 [...]
#83	1695	Antonio Sebastián de Aguilar Cantú	El Pronóstico de los Temporales de el Año que Viene de Noventa y cinco
#84	1695	Carlos de Sigüenza y Góngora	El Almanaque y Lunario que como acostumbre tiene dispuesto para el año que viene de 1695
#85	1696	Antonio Sebastián de Aguilar Cantú	El Pronóstico de los Temporales de el Año que viene de Nouenta y seis
#86	1696	Juan de Avilés Ramírez	El pronóstico de Temporales para el año que viene de noventa, i seis
#87	1696	Carlos de Sigüenza y Góngora	Almanaque y Lunario de D.C. de S. y G. Para el año Bisiesto de 1696 [...]
#88	1697	Antonio Sebastián de Aguilar Cantú	El Pronóstico delos Temporales de e l Año que viene de Nouenta y Siete
#89	1697	Carlos de Sigüenza y Góngora	[Almanaque]
#90	1698	Antonio Sebastián de Aguilar Cantú	El Pronóstico de los Temporales de el Año que viene de nouenta y ocho
#91	1698	Marco Antonio de Gamboa y Riaño	Lunario y Pronóstico de temporales; Con las Elecciones de Medicina, Phle=botomia, Nauegacion, y Agricultura por lo que indicant los Astros este Año de 1698 [...]
#92	1698	Carlos de Sigüenza y Góngora	[Almanaque]
#93	1699	Carlos de Sigüenza y Góngora	El Almanaque y Lunario para el año de 1699

#94	1700	Antonio Sebastián de Aguilar Cantú	El Pronóstico de los Temporales de el Año de mil y Setecientos, proxima venidero
#95	1700	Carlos de Sigüenza y Góngora	El Almanaque para el año que viene de mill y setecientos

Appendix E: on Aquarius and Taurus in Codex Mexicanus compared to two Spanish reportorios and Izcatqui

On Aquarius:

Sancho de Salaya [Granada, 1542]

page unnumbered

Llamase aun la natura del sol quando entra en su onzena casa aquarius. Figurada por vno q[ue] trae o saca vna cantara de agua d[e]l rio: lo qual significa que el sol quando entra en aqueste signo a [following page] diez d[e] henero suele: traer el tie[m]pol leno de agua y de lluiias: y d[e] muestra enello mucho la fuerça d[e]l sol: ca no traeria el agua no lloueria en la tierra si el sol alas partes superioes no tirasse el humor cuya refusion causa la lluiia. aqueste signo llamado aquarius es assignado al planeta Saturno por detras: porq[ue] el sol entra en aqueste signo a diez dias de henero. y quando entra el elel es dia de nueue horas y media. y dende q[ue] entra en aq[ue]ste signo hasta q[ue] sale – cresce el dia vna hora. Es de manera de ayre: y su calidad es caliente y humeda. el que nasciere en aqueste signo sera hombre pequeño: triste de condicion amara mucho las mugeres.

Jerónimo de Chávez [Sevilla, 1584]²²⁵

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El onzena signo segun la sucesion natural, es Aquario, figuardo por vn hombre, q[ue] con vn canatro esta derrama[n]do aguea, el qual fingian los Poetas ser Deucalion. Significando la influencia deste signo, porq[ue] comunmente esta[n]do el Sol en este signo, suele auer gra[n]de abunda[n]cia de aguas. Constasu ymage[n] de quare[n]ta y dos estrellas. Este signo es casa de Saturno diurnal, y gozo suyo. Y detriment diurno y nocturne del Sol. Entra el Sol en el, comunmente a los veynte dias de Enero. Entra en la ymage[n] a veynte y cinco de Enero. Imprime calor y humedad dese plada y nosciua, la qual impide, mata y destruye los indiuiduos de las especies: porq[ue] el ayre es corropido, y daña las plantas y vegetales. Es signo masculino, diurno ocide[n]tal siniestro tortuoso, aereo, es fixo, porq[ue] esta[n]do el Sol en[e]l es fixado el tie[m]p del inuiern, es signo racional d[ela] Hermosa boz, sanquineo. De las partes del ho[m]bre domina sobre las piernas y cañillas, de las enfermedades las destos mie[m]bros, y la ictericia negra, y sobre el ro[m]piamiento de todas las venas. Dende los veynte grados hasta los veynte y once domina

²²⁵ If the Codex was composed before 1583 as Hanns Prem argued, the *tlacuiloque* of the document could not have used the 1584 edition. However, earlier copies do exist (such as one published in 1580) and as each edition assigned to one author is more or less a direct copy of one original text, the 1584 fragment bears the same text as an earlier edition.

sobre el dolor de los ojos. De los colores tiene el verde, el cetrino y puluerino. Domina sobre los mo[n]tes, fue[n]tes y lagunas. De las prouincias sobre arago[n], Saxonia, parte de Bohemia, Ethipia, y la India, la Thaurica, el Piamonte, Sarmacia, Oxiana, Sogdiana, la Arabia, la Azania y Ethiophia, sub Egypto. En particular domina sobre Hierusale[m], Consta[n]cia, Urbino, Monserrato. En España domina sobre Camora, Palencia, Medina. Y lavltima parte deste signo con la primera de Pisces, domina sobre Seuilla, patria y madre nuestra.

Ms 3523-2:

[f.45r]

*Inic matlactlonce ynical tonatiuh
yn oncan monamiqui ynicexiuh tlapohuali
in tontatiuh ytoqa Aquarius ynicmicuilohua
Cetlacatl atetecac anoquia
anoço atlacui atenco
quinextia
ca in tonatiuh yn icuac ypan calaqui
ynin machiotsl matlaquilhuitica Ene/ro/ ycuac
motlapihuia ynatl yhuan m/.../ [f.45v] moloni
ca iuhqui yn tonatiuh yn ilhuicatl yhuan totonqui
Auh in tlalli quimonacayotia ynatl quichichina
yc tlanelhua yohuayo
tlatzmolini ynin signus ytoqa Aquarius
yc momachiotia planetas Saturnos ycanpa Auh
yn iquac yp[a]n calaqui Signus
yn tlaca quipia chiuhnahui hora ypan media auh
in iquac quisa quitlalchua
yn icatl
oncan quisa ce hora yn icuac cenca yeheca
Auh inielis totonqui yamanqui **Inaq[uin] nipa[n]**
tlacatiz ynin Signus²²⁶ to²²⁷ mahuac yes
achipachtic yes cenca tomahuac yes cenca
tlaoco
yani yes nohuian cenca quitlasotlas ynicihuauh
Ets.*

the eleventh house of the sun
there it meets each year the count
of the sun, its name Aquarius is thus written
one person by the water urinates
or takes water [from] the river
he demonstrates
when the sun enters
this one sign, [?] January when
the water will augment and flows
like the sun, the sky [is] warm
and the land, the water grows, it burns
when it gets dark in the center
this one sign arises named Aquarius
when the planet Saturn displays itself behind and
then enters the sign
it holds nine hours and a half and
then it appears, it will work the land
[?]
there it emerges one hour, then it is very windy?
and the sky is warm, lukewarm, who is
born under this sign, is fat, he will be a bit short
he will be very fat, he will be very sad
? that will be everywhere, he will love his woman
very much Ets.

²²⁶ Red in the text itself.

²²⁷ 'huac' crossed out, followed by 'mahuac'.

Appendix F: The content of the Chilam Balam of Chan Cah

1-4	The beginning of time started in the East: each of the 20 day signs is attested to one of the four wind directions and each day has its own negative or beneficial characteristic
4	The four year bearers (Kan; Muluc; Hiix, and Cuau), each related to a wind direction
4	Incomplete list of the amount of days during the months (only for those that have 30 days and February)
5	The year bearers passing through the four wind directions
5-15	Astrological explanation of the twelve zodiac signs; characteristics of people born under them; whether or not it is good or bad to let blood or purge; medical well-being of people; agricultural activities to be carried out
15-19	On the seven days and seven planets; characteristics of those born under them
20	Each of the seven planets with its associated Angel
20	On the twelve months
22-24	Whether or not it is good to let blood in each of the 12 months
24-26	On the veins from which to let blood; which vein should be selected to cure a particular condition
26-27	How foreigners came to the peninsula in 1513; AD 1823 is the year; Creation of the earth according to the 'sacred books' (Genesis)
28-33	References to Juan Damasceno [Damasceno] and Rey D. Alonso who have explained how the

33-39	cosmos is divided into 11 spheres; known by astrologers [Miyatzoob]
40-45	Which of the seven planets rules in which month, for some months it is also mentioned which Zodiac sign rules; how these influence people's health and if these are negative or beneficial in general; medicinal treatments with herbs native to the area
45-48	The days from Sunday up to the next Sunday [in total eight days] and their characteristics as year carrier
49	Uroscopy
50-61	"Figuras del viento" medicine
61-64	God's creation of the cosmos according to Sacred Writings; emphasis on the importance of reading (religious texts) to remain on the straight path; Creation in seven days – the Trinity
65-67	Prognostications of certain types of mortality as indicated by the traveling of certain planets or astral phenomena through the sky in certain directions and/or the days of the week
67-72	Starting in August and ending in December; the Zodiac signs in those months cause illnesses; treatments are provided
72-87	Illnesses and their treatment with native herbs or other products
87-96	Story of doncella Teodora
97-111	Doncella Teodora talks about the Creation of earth by God, the planets, and zodiac signs
111-116	Medicinal treatments that include indigenous plants and drinks
	Four year bearers each located in one of the four corners of the sky; division of 2 veintinas [20 and 21 day signs] in the North, West, South, and

<i>116-117</i>	East and their good, bad, or neutral influence on the day
<i>118-123</i>	The seven planets are listed one to seven as well as their characteristics
<i>123</i>	Canonical actions by a priest during Mass that resonates Christ's final days and moments of his life, his placement in his tomb, and his final talk to his disciples
<i>124-127</i>	Drawing of circle to represent the four wind corners (counterclockwise: East, North, West, and South). Under each wind corner falls one of every fifth sign of 1 veintena, starting at 1 Kan [6 Muluc, 11 Ix, 3 Cauac, the next would be 1 Kan again]
<i>127</i>	In year bearer 6 Muluc (in the Christian year AD 1513), foreigners arrived from the North (also represented in the diagram). The story continues in the year 1832; (herbal) recipes to treat illnesses, again with native plants
<i>128</i>	Short record of births and marriages (1834) of families carrying the sir names of Camal and Pech
	Faded writing, unclear content but likely to refer to historical events during the beginning of the 19 th century (Grupo Dz'ibil, 1982: vii)

Appendix G: plenary indulgence and dates

[folio 7r]

yndulgencia plenaria
ypa[n] ytlacatlilistzin ylhuitzin t[e]t[e]o ynipa[n]/.../
yhuan Maytines onca yndulgencia pl/enaria/
ypan ilhuitzin San Esteua yn o[m]pa tep/.../
ynitocayoca[n] celio onca indulgencia ple/naria/
yp[an] ylhuitzin Sant Juan Evangelista onca y/ndul/
gencia plenaria + ynipan ynceanimahual
/ça/ yn[ompa] purgatorio_____

{folio 7v}

yp[an] ynihuitzin in no center onca indulgencia plena[ria]
ypan circuncisio onca indulgencia plenaria
ypan Epiphania yhua[n] ynioctaua onca ind[ul]g[en]c[i]a ple[naria]
yp[an] ylhuitzin Sancto Sebastian o[n]ca ind[ul]g[en]c[i]a plen[aria]
ypan co[n]versio Santo pablo onca ind[ul]g[en]c[i]a plenari[a]
yp[an] ylhuitzin Sant Juan chrifostomo onca ind[ul]g[encia] ple[naria]
ypa[n] purification cihuapilli onca yndulg[e]n[cia] ple[naria]
ypa[n] ilhuitzin Sant mathias apostol on yndulg[e]n[cia] ple[naria]
/y/pa[n] ilhuitz[i]n Santo thomas de aq[ui]no Onca ynd[ul]g[encia] ple[naria]
/y/pa[n] ilhuitz[i]n Sant p[edr]o max onca yndulg[e]n[cia] ple[naria]
/ypan y/lhuitzin Sant felipe yh[uan] S[a]ntiago onca yndul[gencia]
/yn ix/quich Domingo yp[an] metztli mayo onca
/yndulge/ncia plenaria
/ypan il/huitzin Sant Juan anteporta latina onca
/yndul/gencia plenaria yp[an] ceqca aios de pua
/.../ ye yeilhuil yhua[n] yenahuilhuil yhua[n] ye
/.../c ylhuitl onnahui yn metztli mayo_
/.../ yndulgencia plenaria_
/.../ ic ce[m]pohual ylhuitl yn ipa[n] ylhuitzin Sancto
/Ber/rnadrino Onca indulgencia plenaria_

[folio 8r]

ypan ycomlilhuil Metztli Jonio onca indulg[e]n[cia] pl[e]n[ari]a
ypan ylhuitzin Sant antonio de padua onca indulg[e]n[cia] p[lena]r[ia]
ypa[n] ylhuitzin S[an] Ju[an] b[a]ptista yh[uan] yni octaua onca
indulgencia plenaria
yp[a]n y vigilia Sant p[edr]o yhuan San pablo onca ind[ul]g[encia] p[lena]r[ia]
yp[an] yn visitatio cihuapilli onca indulg[e]n[cia] plenaria
yp[an] ylhuitzin Maria magdalena o[n]ca ind[ul]g[en]c[i]a pl[e]n[ari]a
yp[an] ylhuitzin Sanctiago [sic] onca yndulg[e]n[cia] plenaria
yp[an] ylhuitzin Sant p[edr]o advicula onca ynd[ul]g[en]c[i]a plena/ria/
yp[an] ylhuitzn cihuapilli adniues o[n]ca ind[ul]g[en]c[i]a pl/enaria/
yp[an] ycomilhuil metztli agosto o[n]ca ind[ul]g[en]c[i]a /plenaria/
ypa[n] ylhuitzin Sancto domingo onca ind[ul]g[en]c[i]a /plenaria/
yp[an] ylhuitzin San Lorenço o[n]ca yndulg[e]n[cia] p/lenaria/
+ No yhuan yniq[ua]c cana cecni teopa[n] huiloh/.../
nete ochichualo ynipa yxq[ui]ch miercoles yni/.../
xiuh queça + yece anima quiça yn o[m]pa pu/.../
ypa[n] yninetlecahuilis ylhuitzin cihuapilli /...
ynioctaua onca indulgencia plenaria_
ypa[n] ylhuitzin Sant nicolas de torentino o[n]ca ind[ul]g[en]c[i]a pl/enaria/
ypa[n] ilh[ui]tz[i]n Sancta cruz Exaltacion onca ind[ul]g[en]c[i]a
ypa[n] ylhuitzin Sant matheo apostol o[n]ca y[n]d[ul]g[en]c[i]a p/[lenaria]

[folio 8v]

yp[an] ylhuitzin San tieronimo onca ind[ul]g[en]c[i]a plena[ria]
ypa[n] ylhuitzin S[an] fra[nsis]co yhua[n] yn octaua o[n]ca [yn]d[ul]g[en]c[i]a

yp[an] yn imilhuitzin S[a]n [Barto]lome yh[uan] yn octaua o[n]ca ind[ulgencia plenaria]
yp[an] yn ilhuitz[i]n mimicque onca indulg[e]n[cia] plenaria
yp[an] ylhuitl ynitoc dedicacion de la yglesia de sanc
p[edr]o y san pablo onca yndulg[e]ncia plenaria
yp[an] ilhuitzin cihuapilli itoca p[re]sentacion adpopu
lus onca indulgencia plenaria__
ypa[n] ilhuitzin Sancto andres onca yndulg[e]n[cia] plenaria
ypa[n] ilhuitzin yn co[n]cepcion onca indulg[e]n[cia] p[re]l[e]nari[a]
yp[an] yccaxtolilhuitl omei diciembre ynipa[n]
/ypan ilh[uitz]i[n] yn itoca Sancta maria de la o ind[ul]g[e]nc[ia]
/ypan ilhu[itzi]n Sancto thomas apostol onca ynd[ulgencia]
/.../zc ycnopilhuilo ynipopoloca yn ixq[ui]ch
/.../tlacolli in itoca r[emission] [sic] yehuatl yn il
/..ynican motenehua__
/ypan i[huitzi]n Sancta ynes R[e]mission de tod[o]s
/los p[ec]cados__ los pecados
/y/[pan] ylhuitzin San gregorio remission de todos
yp[an] ilhuitzin San miguel in itoca reuelacion
/r[emission] de todos los p[ec]cados__

[folio 9r]

yp[an] ilhuitzin Sant bartholome yhua[n] yn octa
ua remission de todos los peccados peccad[o]s
yp[an] ylhuitzin San agustin remission de todos los
yp[an] ilhuitzin cihuapilli natividad remission de los pecca
yp[an] ylhuitz[i]n ynitoca consecracion del Salvador
Remission de todos los peccados__

¶ nican ca yn Estaciones__

yp[an] yc centetl Domingo auiendo yh[uan] ynic o[n]
tetl yhua[n] ynic Etetl on Estaciones__
yp[an] miercoles quatro temporas o[n]ca Estaciones
yp[an] viernes yhua[n] sabado yn ça no yq[ua]c /qua
tro temporas onca Estacion__
yp[an] visperas ytlacatilistzin ylhuitzin t[ot]t[e]o on/ca
yp[an] domingo septuagesima yhua[n] sesagesi/ma/
yhua[n] qui[n] quagesima onca Estaciones__
yp[an] yxq[ui]ch cecemilhuitl yp[an] queresma /.../
pehua ipa[n] miercoles yn iq[ua]c necmocui ynix/.../
ica sabado de pasqua miec onca estaciones ce[n]
ca huehuei yn amo ça[n] y yo indulgencias yhua[n]
Remisiones plenarias ynic nopilhuilo ynipan

[folio 9v]

cecentetl Estacion oco onca mimiecilhuitl
tetla ocolilistli ynipan cece milhuitl quares
ma_
+ yp[an] sabado yvisperas derramos ce ani

ma quixtillo yn o[m]pa purgatorio yn ac y
 yehuatl quinequi yntlacnopilhuis_
 yp[an] pasqua de Resurreccion yh[uan] yn ixq[ui]ch
 ynioctaua momotlac o[n]ca Estacion_
 yp[an] domingo in albis onca Estacion_
 yp[an] ylhuitzin San marcos onca Estacion
 /ypan?/pa San p[edr]o
 /ypan il?/huitzintli ascension onca Estacion
 /.../letanias mayores onca Estacion
 /.../pasqua de Esp[irit]u sancto miec onca Estacio[n]es
 /.../ miercoles yhua[n] viernes yhuan sabado y
 /.../quatro te[m]poras yn ipa[n] Metztli setic
 /.../ onca Estaciones_
 yp[an] yxquich cecemilhuitl yn iq[ua]c onca yn
 dulgencias no onca Estacion [flower decoration]
 ynicuac omonaca y^otitzinoco

Appendix H: comparison between description of the months of the Western calendar in the Nahuatl handwritten text from the *Doctrina Cristiana* by Pedro de Gante [1553] and those from the Spanish reportorio by Sancho de Salaya [Granada 1542].

February:

Nahuatl reportorio

Sow all seeds in irrigated soil, including melons, quinces and fruit trees. Oranges and lemons should be planted in their seedbeds. And if a part of a tree is [lying: tendida], you can graft a tree with it and this one you can also plant. The sign of the month of February is Pisces. And illnesses can be relieved by cutting with obsidian. The sign is very bad for those who are sickened *by the dead* [translation of *by the dead* is doubtful: mimicque], there is much difficulty in curing them. The sign of this month is Pisces. And those born under this sign will be very strong and have very dark/black hair. They will be full of phlegm.

Spanish reportorio

Prune the vineyard, sow some legumes, melons and cucumber. When it is new moon, transplant [plant] oranges, lemons and myrtle and irrigate the trees with water and sow flax. It is the appropriate time to check the beehives to see if the bees are inside or outside of the hive and to let blood from whatever part of the body. In this month it is dangerous to have some ailment on the feet.

[...] Those born in this month have a well-proportioned body [gentil hombre de cuerpo] with black hair; he/she will be melancholic and become sick easily.

March:

Nahuatl reportorio

In this month they prune much. Thus those who had been [tendido] and sown will not die, thus they will reproduce. And many influences from outside sicken our body. In march our head hurts often, our

ears, they are infected; much difficulty in curing them. And the sign of the month is named Aries. And he whose is born under it are easily aggravated; his anger thus is not just a little.

Spanish reportorio

In this month it is good what had been sown from dangerous herbs [weed] and when it is new moon plant slips of trees. It is the time in which many bad humors and great pains in the human body appear. Dangerous are the pains in the head and of the ears, more than anything in the body.

April:

Nahuatl reportorio

In this month, pigeons are being born which have to be taking care in order for them to grow. Those who are born under him [Taurus] grow much for this reason. His name is Taurus. It is appropriate that people will cut themselves with obsidian; it is a good time and with this the body of people will heal. When we get sick at our pharynx, of our throat, it is very bad. If it does not infect, it will heal. And the sign of the month is of that which is named Taurus. Those born under it will live together; they will live brotherly with their friends.

Spanish reportorio

In this month you will have to sow the alfalfa and hemp and cut the beehives in order to retrieve the honey and wax. If you have small pigeons, leave them in their loft so they can grow, this is the best time of the year for them to grow. And in this month the blood will rise much and to purge is very healing. And for whatever pain in the throat it is very dangerous to cut with iron.

May:

Nahuatl reportorio:

In this month it is very appropriate to harvest saffron. By doing so, the mice will not pose any danger to them. And it is very appropriate to do so [because] to all [plants] will attract small animals. And thus our body, our forearm will become ill. It is very bad, and with difficulty to heal. And if one is hurt by [cutting oneself] with obsidian, it is not necessary to cut oneself more with obsidian. And the sign of this month is named Gemini. And those who are born under it, very fast they become governor, very fast will they raise their walls.

Spanish reportorio:

In this month you have to harvest saffron²²⁸ so that the mice will not gather themselves in between, and it is a good time to divide the profit and to cut the beehives. Pains in the arms in this month are dangerous. And when you have an ailment in the hands or nails, you don't want to file your nails with iron.

²²⁸ In Spanish it reads *acafranales*. This is translated by Laura DelBrugge (1999:74) as 'crocuses'. However, I believe that it refers to *zafran*, Spanish for saffron.

June:

Nahuatl reportorio:

In this month it is appropriate to sow garlic. They will sow mustard in the seedbeds. And it is appropriate to to extract the garlic from their seedbed.²²⁹ And thus we will get sick at our chest and our bile; our liver is sick; much difficulty to heal. And the sign of this month is named Cancer. Those who are born have a beautiful body, and they will be lovely as well.

Spanish reportorio:

In this month it is good to graft when the moon is full. You have to sow millet/maize, sorghum, and millet [other Spanish word for millet than the previous one] and to extract the garlic and sow the cabbages and plant the slips of the fig tree. And as has been written by Palladius [DelBrugge 1999:75 explains that this fourth century AD writer wrote a book about farming] in this month, when you cut your wheat, do so when the moon is full, the wheat will last longer if you don't cut it during new moon. Pains in the chest, lung and liver are dangerous. Those born in the sign of Cancer will have a beautiful and body, courageous and will be very strong.

July:

Nahuatl reportorio:

In this month it is very appropriate to sow the seeds of cabbages and of lettuces. It is very bad to cut oneself with obsidian. And also it is very bad to sleep too much. And it is also bad to bathe in the *temazcal* during this month. And also it is bad to take garlic with salt. And this month will hurt our heart and our intestines. Also it is bad to aggravate yourself. And the sign of the month is named [Leo] *ocelotl*. Those born will be very old, they will bend much, they will be very bald. They will be respected, and very courageous and strong.

Spanish reportorio:

In this month they sow the cypress branch and lettuces. This time is dangerous for bloodletting and purging and is harmful to dream during midday and you shouldn't bath. In this month, garlic and sage are medicinal. And pains of the heart and stomach are very dangerous. Born under the sign [of Leo] means to become much respected and to behave correctly and with a strong heart.

August:

Nahuatl reportorio:

In this month it is very appropriate to sow garlic and beans. And also it is appropriate that they sow onion; that will keep them safe. And they will sow pomegranate and figs. And it is very necessary, good, to have intercourse with a woman. Very bad are bathing in the *temazcal* and gluttony (over-eating). And it is very appropriate to cut oneself with obsidian in this month; unclear sentence (Lopez Austin 1973: 295): it is not very appropriate, due to an illness it could be appropriate. And the sign of the month of August is named Virgo (maiden/*doncella*). Those who are born are very intelligent, knowledgeable and very happy.

²²⁹ Doubtful translation (López Austin 1973:294).

Spanish reportorio:

In this month you should sow cabbages during Quaresma for the Brussels sprouts and turnips, beans and to extract the onions as much as you can. It is very good to sow barley and wheat. In this month the company of women is dangerous and also dreaming during midday. It is dangerous to bath and to eat much and one shouldn't let blood or purge nor take medicine. Those who are born will gain much, be musical and very charming

September:

Nahuatl reportorio:

In this month the fruits of the vineyard appear again. And thus they sow. The maize is giving [his maize]. And milk will be very good. It is very good to cut oneself with obsidian. Wounds will not proceed if they relieve them with obsidian on the flanks, his forearms, his buttocks [of the ill]. Also it is very bad [the sign for them]. And the sign of the month of September has the name Libra. Those born are well educated and work hard.

Spanish reportorio:

In this month they harvest the grapes and you have to select the grapes that you want to raise during a full moon and the warmest hour during the day. In this month the sowing of breads [panes] is wonderful. Milk is most delicious. You can let blood without any danger. Pains in the kidneys and the buttocks are most dangerous. Those born are well educated, work hard and have many friends.

October:

Nahuatl reportorio:

In this month it is very appropriate that the pomegranates, quinces, apple and all other types of fruit are fully grown; they will raise, as such they will be kept. And the meat of birds will be very good, tasty and it is good to eat it. And if we get infected somewhere, or we have scraped ourselves [the ill parts] will be difficult to heal. And also perhaps in relation to our body: teeth will appear [translation doubtful:295] if they don't appear completely, if they only appear at the surface it is not possible to cure them rapidly. And the sign of the month of October is Scorpio. It sickens our belly. Those who are born gossip a lot, are critical and tricksters.

Spanish reportorio:

In this month they should extract the pomegranates, quinces and apples and whatever seasonal fruit during full moon. Whatever birds and animals [salvajes] are tasty. Whatever sore is difficult to cure and pains in the hidden limbs [miembros ocultos] are very dangerous.

November:

Nahuatl reportorio:

In this month they can plant the fruit trees, [when] they take down the branches. And also they should sow the fruit trees, the vineyards. They will cut, they will cut with an axe. And also they will plant cider. And it is also appropriate to cure oneself if our mouth is hurting. And if our calves hurt, it is dangerous to bath in the *temazcal*, to cut ourselves with obsidian, because of the archer of November.

And it [is] the sign of this month. Those born under this sign, as children will never obey their parents, they will be very disgraceful, and very proud and scared

Spanish reportorio:

In this month during full moon you can replant whatever tree that loses his leaf and to plant and prune the vineyard. During new moon replant ciders and myrtle. It is the appropriate time to cure, whatever pain caused by rheumatism. And pains in the feet are very dangerous. It is safe to let blood and to take a bath. He who is born under this sign will be a man who's children will not obey him; and he will be disgraceful.

December:

Nahuatl reportorio:

In this month it is very appropriate to bury, plant the vineyard. And also they will cut the meat. And the bird that men eats will be very bad. And it is also a good time. Our arms, our head can be cut with obsidian. And if we get ill at the top of our head it will be very bad. And the sign of the month has the name Capricorn. Those born under this sign will behave himself to make sure that his friends will argue amongst them. And its property, its hacienda²³⁰ will be very despicable, etc.

Spanish reportorio:

In this month you can also, as was written in the above, plant and to prune the vineyard: to cut reed and withy during full moon. All warm things are good during this month; and it is safe to let blood from the vein in the head. Pain in the knees is dangerous. He who is born in the sign of Capricorn, will be a man who perceives his brothers to be his enemies: he will be frank and very wicked.

Appendix I: Animals, plants/trees and agricultural produce affected by the planets. A comparison between Izcatqui and two Spanish reportorios.

Ruling planet	Izcatqui	Reportorio Andrés de Li [1495] Reportorio Sancho de Salaya [1542]
Moon	Tree in general; calabash; cucumber; flower; grass	Cow, donkey; fish; white birds; olive, apricot and willow trees; seeds of cucumber, melons and calabash; all herbs cold and humid
Mercury	Goats; sheep; birds; beehive; worms; fruit trees – ciders, lemons, granades; sugar cane; sugar	Deer; goats; birds; bees; worms; trees – ciders, lemons, ginger, pomegranate, walnut; plants – flax, hemp, sugar cane
Venus	Flower; birds, pigeons; fruit – apples; tree in general	Flowers; stags; tiger cat and other 'painted' [brutos]; pigeons; puput

²³⁰ The Nahuatl text reads *auh yn imaxca yn intlatqui* or 'POS-ser tuyo' 'suyo and Lopez Austin translated this as 'propiedad, hacienda' however I would suggest it does not literally refer to property.

		(type of bird, hoopoe: <i>abubillas</i>) ; snake; ants; spiders; trees – apple, apricot, and those of exquisite fragrance
Sun	Jade; ocelot; horses; ram; snake; pear; wheat; roses; flower <i>Alm</i> [...]; cochineal; <i>amaxihuitl</i> ; bean	Gold, precious stone; pearl; lions; horses, rams; dragons; trees – date palm, vine arbors, figs, roses musk, <i>grana</i> , mulberry
Mars	Dogs; leopards; birds; granades; lemons; oranges; pepper; mustard; cumin; seeds of radish, onions, garlic; flower <i>Rondra</i> ; safran	Dogs; leopards; goshawks; iguanas; salamanders; scorpions; all spine trees – pepper, mustard, cumin; seeds – radish, leek, onions; garlic; <i>ruda</i> (medicinal plant); <i>escamonea</i> (medicinal plant); saffron
Jupiter	Jade; fruit tree; chayote; prickly pear; birds; turkeys; quetzal birds; cochineal; seeds of maiz, bean, chilli; all flowers	Hyacinth stone, zinc oxide, crystal, sapphire; [brutos que tienen una tendida: running brutos?]; chickens, [pauones]; worms; seeds of wheat, barley, chickpea, rice, viola, all herbs of exquisite fragrance and taste, musk, camphor; amber; lignum aloe <i>linalo</i> (wood of the aloe); [dresses of] silk
Saturn	‘great/big eaters’ <i>huehueyntin tequanime</i> [...] <i>pantes</i> ; pigs; dogs; birds; white trees; bulls; bat; scorpion; crab; rats; trees; granades, limones, oranges; (unspecified) seeds	Elephants, camels, pigs, dogs, black cats; birds – ostrich, eagle, crow; bat, owl, fleas; bugs; flies; rats; trees – oak, carob, holm oak; seeds of lentil, lupine, millet [millet not in repertorio 1554]

English Summary

Here It Is. A Nahuatl Translation of European Cosmology: Context and Contents of the Izcatqui Manuscript in the Royal Tropical Institute, Amsterdam.

The Royal Tropical Institute in Amsterdam (Tropenmuseum) holds a manuscript that was made in Mexico in the indigenous language of Nahuatl. This handwritten text has been in Europe since the 1960's and is a unique manuscript in the Netherlands. It is studied by few and therefore its content remained enigmatic. Therefore the aim of the research here has been to understand its content. The manuscript contains 121 folios and is composed by six different hands that represent individuals who worked together to create it in a single period. The manuscript is dated on the 14th of October 1758 and is said to belong to a *maestro* Felipe de Santiago tepetlatzin. There is no contextual information on whomever had the text composed or owned throughout its years of existence.

The manuscript in its current form was made in a period of almost 250 years after the arrival of the Spanish in the Mexican mainland. The process of colonization at large has resulted in a continuous discrimination and threat of indigenous languages and way of life. By the eighteenth century, the political, cultural and religious reality of the demographic composition of Mexico had changed drastically from the early 1500s, albeit in a variety of speeds, intensity and violence throughout the continent. Within this history and by means of this dissertation I zoom in on a particular moment in time, starting point 1758, and what at least 6 individuals were concerned with. The array of colonial documents, both in Spanish and indigenous languages allows us to interpret the tangible results of the interaction of people from different cultural backgrounds.

The Izcatqui manuscript is a collection of a variety of texts from Spanish and Latin sources that were translated into Nahuatl. The first ten folios set the reader immediately in a Christian worldview. Although without a source text, these ten folios highlight the content of a religious holy document that would grant indulgences to anyone baptized into the Catholic religion. This papal bull is known as a Holy Bull of the Holy Crusade. These papal documents were issued quite frequently; the first pages of Izcatqui refer to one such document that was issued during the papacy of Pope Gregory XIII. Through this issue, the West Indies were ideologically included to the Christian realm. The reader is not only informed on the benefits of the Catholic religion, but also made a participant by reading (i.e. orating) two prayers.

The main body of the manuscript is a translation of a Spanish astrological almanac or *reportorio de los tiempos*. Almanacs have a long history, going back to Babylonian times, and adopted and shaped by different cultures of the Mediterranean in centuries thereafter. These almanacs contained information on time reckoning, the seasons, agriculture, medicine and aforementioned astrology. Eventually, these almanacs were printed in Spain and other European countries from the late fifteenth century onwards. As there was no such thing as copyright there were also no limitations as to what someone could copy from an already published book. Although there are distinct differences in content between several *reportorios*, many of them are also alike. After comparing the Nahuatl manuscript with Spanish *reportorios*, it seems plausible that its composers consulted at least the works by Andrés de Li [1529], Sancho de Salaya [1542 and 1554], and Ambrosio de Gante [1581]. These almanacs were produced for

the order of San Bernardo. This order was well known for its own handwriting, style of initials and production of manuscript and books. In Mexico, its first convent was built in the capital in 1636. For now there are no other leads that would suggest a link between the source texts of Izcatqui and its place of origin, however for future reference this would be an avenue to explore.

The third source text that was consulted was a computational book written for clergymen in particular. This book would aid them to calculate Catholic feast days so they could communicate these dates to the members of their community. The manuscript lists several of these mnemotechnic methods using verses and diagrams.

The fourth source that we find in Izcatqui is an incorporation of a medicinal treatise by Greek Pedianus Dioscorides from the first century AD. As a traveling doctor for the Roman army he came across local medical treatments. He recorded over a 1,000 recipes. Centuries later, in 1555, Dioscorides' work was translated into Spanish by Andrés de Laguna. The *tlacuiloque* of Izcatqui familiarized themselves with this book and incorporated it into their own.

The four source texts that were identified came together in a miscellaneous Nahuatl text. The question of what the exact location of origin is remains unanswered. The only location that is certain to be related is its whereabouts before it came to The Netherlands, the city of Xalapa in the state of Veracruz. The text itself does not seem to give away any clues based on use of grammar or phonetical characteristic of some regions where Nahuatl is/was spoken, at least not unto this point.

Writing and reading itself however, was reserved for a small number of the population in the eighteenth century. The individuals that composed Izcatqui were well-educated, and operated within a religious and/or educational context. They felt a need to create a text that would be read by an indigenous readership. Not only did they provide a text that would be read by Nahuatl speakers, but they made a visible effort to offer them a text that would be understood by them. Terms from the Gregorian calendar and Zodiac signs are translated into the closest Nahuatl equivalent that would make sense to both the composers and its readers. In addition, several agricultural and ecological items from the Old World were replaced with those from the New World.

Izcatqui does not exist as a single manuscript when it comes to its content. The corpus nowadays is not large, however there are other examples of miscellaneous texts which, to varying degrees, contain translations from similar source texts and the *reportorio* being one the most pronounced ones. They come in different indigenous languages and in total span a period of over 3 centuries.

There are three examples in Nahuatl. The earliest known text is a handwritten addition to a printed *Doctrina Cristiana* by Pedro de Gante from 1553. The *tlacuilo* purposefully selected and merged information on agricultural practices, medicinal and other *consejos*, as well as Zodiacal information (dispersed in a Spanish almanac) in a short text. Similar to Izcatqui, the *tlacuilo* replaced some ecological products unknown to a Mesoamerican readership and only added information that would appeal to an indigenous readership. Second is the *Codex Mexicanus*, a manuscript that combines both indigenous central Mexican pictography and handwriting in the Roman alphabet, also from the sixteenth century. Its composer consulted an almanac for calendrical, astrological and medical purposes, adorned with images and tables that were copied from a *reportorio*. The final example is *Fonds Mexicain 381* from the seventeenth century. Here we have a beautiful example of a reference in the text itself that it was not just read, but consulted by a diviner.

In the language of Otomí, and also from the seventeenth century, there is the *Codex Huichapan*. The reference here to a *reportorio* is minimal, and seems only present for calendrical purposes. This example does indicate that the genre of the *reportorio* was known in other indigenous languages too.

The final examples support this notion too. These are three out of nine books that belong to the corpus of *Chilam Balam*, written in eighteenth and nineteenth centuries in Yucatec Maya. They are the *Chilam Balam* of Kaua, Ixil and Chan Cah. These include the most extensive amount of material from a *reportorio*. In addition to the other texts, the *Chilam Balam* of Chan Cah and Kaua include an old

Arabic story about a slave girl being sold to an Arabic King for an, to him, absurd amount of gold. He has her interrogated by the wisest men of the kingdom. Her net worth is only indicated by her replies from the knowledge contained in her mind. She wins the interrogation by answering with the complete description of the Zodiac signs and characteristics of people born under the guidance of these signs. Including the story of Doncella Teodora, the writers not only educated the reader on the content of a *reportorio*, but highlighted what was considered knowledge in the first place.

The *tlacuiloque* of Izcatqui created a manuscript at a particular moment in the history of colonial Mexico. They were preceded by over 200 years of people coming in from the Old World, who in parts forced those in the New World to perceive their world differently. Local ways of time reckoning and divination were deemed superstitious and in general no longer allowed by the new colonial power. At the same time, indigenous scholars familiarized themselves with science and literature that came along from over the Atlantic. The corpus of manuscripts that contain the rich information from a *reportorio* spans a region as large as Central Mexico to the peninsula of Yucatán and over three centuries. It seems reasonable to argue that the small corpus that is left today is just a small portion of texts that circulated once before. As is attested by Fonds Mexicain 381, these books in local indigenous languages, were consulted by a diviner to read the fates of those in need. The Spanish *reportorio* found its destiny in locally altered versions as a guide to life of its own.

Nederlandse Samenvatting

Hier is het. Een Nahuatl vertaling van Europese Kosmologie: Context en Inhoud van het Izcatqui Manuscript in het Koninklijk Instituut voor de Tropen, Amsterdam.

Het Koninklijk Instituut voor de Tropen in Amsterdam (Tropenmuseum) bewaart een manuscript dat is geschreven in Mexico in de inheemse taal die men Nahuatl noemt. Deze handgeschreven tekst bevindt zich in Europa sinds de jaren '60 van de vorige eeuw en is een uniek manuscript in Nederland. Het is door weinigen bestudeerd en daarom is de inhoud hiervan enigmatisch. Het doel van dit onderzoek is daarom dan ook om de inhoud van deze tekst te begrijpen. Het manuscript bestaat uit 121 folio's en deze zijn geschreven door in totaal zes individuen. Deze werkten samen aan het manuscript in een enkele periode. Het manuscript is gedateerd op 14 oktober 1758 en zou toebehoren aan een *maestro* Felipe de Santiago tepetlatzin. Er is geen verdere contextuele informatie over wie de opdracht gaf om deze tekst samen te stellen of in zijn bezit had.

Het manuscript in zijn huidige vorm is gemaakt bijna 250 jaar nadat de Spanjaarden aankwamen op het vasteland van Mexico. Het proces van kolonisatie resulteerde in een doorlopende periode van discriminatie en bedreiging van en voor inheemse talen en gebruiken. In de achttiende eeuw waren de politieke, culturele en religieuze werkelijkheid voor een groot deel van de demografie van Mexico drastisch veranderd sinds de vroege zestiende eeuw, weliswaar in variërende snelheid, intensiteit en gewelddadigheid voor de lokale bevolking. Middels dit proefschrift zoem ik in op een specifiek moment in tijd gedurende deze geschiedenis. Het startpunt is 1758, en het uitgangspunt is waar deze zes individuen in geïnteresseerd waren. Koloniale documenten, zowel in het Spaans als in inheemse talen, laten ons toe om tastbare resultaten van de interactie tussen mensen van verschillende culturele achtergronden te interpreteren.

Het Izcatqui manuscript is een collectie aan een verscheidenheid van teksten van Spaanse en Latijnse bronnen die zijn vertaald naar het Nahuatl. De eerste tien folio's plaatsen de lezer vrijwel direct in een Katholieke wereld. Hoewel de inhoud van deze pagina's niet naar een directe brontekst is herleid, weten we wel dat de tekst afkomstig is van een pauselijke bul. Een dergelijke bul verleent aflatingen voor iedereen die gedoopt is binnen het Katholieke geloof. Deze pauselijke bul die als bron diende voor Izcatqui staat bekend als de Heilige Bul van de Heilige Kruistocht. Dergelijke bullen werden regelmatig uitgegeven en degene die voor Izcatqui werd vertaald werd uitgegeven tijdens de pausdom van Paus Gregorius de Dertiende. Door deze afgifte werden de kolonies ideologisch onderdeel van het Katholieke rijk. De lezer van Izcatqui wordt niet alleen geïnformeerd over de voordelen van het Katholieke geloof, maar wordt ook deelnemer hiervan doordat de tekst deze vraagt twee gebeden op te zeggen.

Het merendeel van de tekst is een vertaling van een Spaanse astrologische almanak of *reportorio de los tiempos* in het Spaans genaamd. Almanakken kennen een lange geschiedenis en gaan terug tot Babylonische tijden. Ze zijn overgenomen en aangepast door diverse culturen in het Mediterrane gebied in de eeuwen hierna. Deze almanakken bevatten informatie over de kalender, de seizoenen, landbouw, geneeskunde en astrologie. Uiteindelijk werden deze almanakken als boeken geprint in Spanje en andere landen die nu behoren tot Europa vanaf de laat vijftiende eeuw. Omdat er toen nog niet zoiets bestond als copyright, waren letterlijke kopieën van al gepubliceerde boeken ongelimiteerd. Hoewel sommige almanakken erg van elkaar verschilden, leken anderen juist ook letterlijk als kopie op elkaar. Na een vergelijking tussen het Nahuatl manuscript en diverse Spaanse almanakken is gebleken dat de makers

op zijn minst de werken van Andrés de Li [1529], Sancho de Salaya [1542 en 1554] en Ambrosio de Gante [1581] raadpleegden. Deze almanakken zijn gemaakt in naam van de orde van Sint Bernard. Deze orde is welbekend om zijn eigen stijl handschrift, stijl van initialen en de productie van manuscripten en boeken. Het eerste klooster van deze orde dat in Mexico is gebouwd stamt uit 1636 en vinden we terug in de hoofdstad van het land. Voor nu zijn er geen verdere aanwijzingen die zouden suggereren dat er een link bestaat tussen de bronteksten van Izcatqui en haar plaats van origine. Dit zou wel een mooie onderzoeksvraag zijn voor toekomstig onderzoek om zo meer te weten te komen over waar Izcatqui is gemaakt en door wie.

De derde brontekst die de samenstellers van Izcatqui raadpleegde is een praktische rekengids geschreven voor geestelijken. Met zo'n dergelijke gids konden zij berekenen op welke datums en wekdagen Katholieke feestdagen vielen. Deze datums konden zij vervolgens doorgeven aan de leden van de kerkelijke gemeente. Het manuscript noemt diverse methodes, of handige ezelbruggetjes, in de vorm van verzen en diagrammen.

De vierde brontekst is een verwerking van een medisch naslagwerk van de Griek Pédianus Dioscorides die leefde in de eerste eeuw na Christus. Hij reisde als arts voor het Romeinse leger en kwam zodoende in aanraking met vele lokale manieren van genezen. Hij registreerde maar liefst meer dan duizend recepten. Eeuwen later, in 1555, werd zijn werk vertaald naar het Spaans door Andrés de Laguna. The schrijvers van Izcatqui maakten zichzelf bekend met dit werk en gebruikten het voor hun eigen tekst.

De vier bronteksten die zijn geïdentificeerd kwamen samen in deze Nahuatl tekst. De vraag waar het manuscript zijn precieze oorsprong vond is niet beantwoord. De enige locatie waarvan we zeker weten dat het manuscript zich daar bevond voor de reis naar Nederland, is de stad Xalapa, in de staat Veracruz, Mexico. De tekst zelf geeft helaas ook geen aanwijzingen prijs op basis van het gebruik van grammatica of fonetische schrijfwijze. Deze kunnen kenmerkend zijn voor een bepaalde regio waar men Nahuatl sprak of spreekt. Helaas lijkt dat hier dus niet van toepassing te zijn.

Schrijven en lezen kon slechts een beperkte groep van de populatie in de achttiende eeuw. De individuen die Izcatqui samenstelden waren hoogopgeleid en bevonden zich in een religieuze en/of educatieve omgeving. Zij voelden een noodzaak om een tekst te creëren die zou worden gelezen door inheemse lezers. Niet alleen creëerden zij een tekst die gelezen zou worden door Nahua lezers, maar maakten zij ook een bewuste inspanning om de lezer een tekst te bieden die zij zouden begrijpen. Termen vanuit de Gregoriaanse kalender en astrologie zoals de namen van de sterrenbeelden werden vertaald in Nahuatl woorden die het dichtst bij de oorspronkelijke termen lagen. Ook werden bepaalde items met betrekking tot landbouw en ecologie uit de tekst gelaten die niet van toepassing zijn in Mexico of vervangen door voorbeelden die juist wél aanwezig zijn.

Izcatqui staat niet op zichzelf als manuscript. Het corpus tegenwoordig is niet groot, maar er zijn andere voorbeelden van vergelijkbare teksten die, in meer of mindere mate, vertalingen bevatten van vergelijkbare bronteksten met de almanak als belangrijkste. Deze teksten bestaan in een aantal inheemse talen en reiken in totaal over drie eeuwen heen.

Er zijn drie voorbeelden in Nahuatl. De vroegst bekende tekst is een handgeschreven toevoeging aan een gedrukte *Doctrina Cristiana* (catechismus) van Pedro de Gante uit 1553. De schrijver selecteerde doelbewust een aantal fragmenten en voegde deze samen om te komen tot een korte tekst die hij wilde presenteren aan de lezer. Hierin gaf hij de lezer informatie over landbouw activiteiten, geneeskunde en andere adviezen alsmede informatie over de sterrenbeelden. Net als bij Izcatqui, verving de schrijver ook hier een aantal ecologische items die onbekend waren voor een Nahua lezer en voegde alleen informatie toe die zou aanspreken. Het tweede voorbeeld vinden we terug in de *Codex Mexicanus*, een manuscript dat zowel Centraal Mexicaanse pictografie en een schrijfwijze in het voor ons bekende alfabet combineerde. Ook dit werk stamt uit de zestiende eeuw. Hier werden een reportorio geraadpleegd om zo informatie over de kalender, astrologie en geneeskunde, samen met afbeeldingen en tabellen te

presenteren. Het laatste voorbeeld, uit de zeventiende eeuw, is een manuscript dat bekend staat als Fonds Mexicain 381. Hierin vinden we een prachtig voorbeeld van een referentie in de tekst waaruit we kunnen opmaken dat het werk niet alleen door geleerden werd gelezen maar ook daadwerkelijk werd gebruikt tijdens een consultatie voor mensen die graag een vraag willen voorleggen in tijden van onduidelijkheid.

We vinden een ander voorbeeld van een verwijzing naar de almanak in de codex Huichapan, geschreven in de inheemse taal Otomí in de zeventiende eeuw. De referentie hier is echter minimaal, en lijkt alleen aanwezig te zijn vanwege de verwijzingen naar de Gregoriaanse kalender. Dit voorbeeld geeft echter wel aan dat het genre van de almanak ook voor een groep mensen die een andere inheemse taal spraken bekend was.

De laatste voorbeelden ondersteunen deze veronderstelling. Dit zijn drie teksten die behoren tot een belangrijke groep teksten van de Chilam Balam, geschreven in de achttiende en negentiende eeuw in Yucateeks Maya. Bij naam zijn deze bekend als de Chilam Balam van Kaua, Ixil en Chan Cah. Hierin treffen we de meeste pagina's aan met verwijzingen naar een Spaanse almanak. De Chilam Balam van Kaua en Chan Cah bevatten tevens een oud Arabisch verhaal over een slavin die op het punt staat te worden verkocht aan een Arabisch koning voor een, volgens hem, belachelijk hoog bedrag. Hij laat haar ondervragen door de wijste mannen uit zijn koninkrijk. Zij zal net zoveel waard zijn als de kennis die zij in pacht heeft. De slavin wint de ondervraging door onder andere een volwaardig verslag van de sterrenbeelden en kenmerken van personen geboren onder een sterrenbeeld op te sommen. Dit verslag komt rechtstreeks uit een almanak. Dit toont aan dat schrijvers van de Chilam Balam niet alleen de lezer wilde informeren over de inhoud van de almanak maar tevens dat de kennis hierover bovenaan de hiërarchie stond van wat men überhaupt als kennis verstond.

De schrijvers van Izcatqui creëerden een manuscript op een bepaald moment in de geschiedenis van koloniaal Mexico. Zij waren voorafgegaan aan 200 jaar van mensen die het continent binnen kwamen vanuit de Oude Wereld, hun voorouders die deels gedwongen werden om hun wereldbeeld te veranderen. Lokale manieren van tijdberekening en divinatie werden gezien als bijgelovig en over het algemeen verboden door de nieuwe koloniale macht. Tegelijkertijd maakten inheemse geleerden zichzelf bekend met de wetenschap en literatuur die van over de Atlantische Oceaan hun kant op waren gekomen. Het corpus van manuscripten dat de rijke informatie bevat uit een Spaanse almanak reikt zo wijd als het gebied van Centraal Mexico tot aan het schiereiland van Yucatán en tot wel drie eeuwen door de geschiedenis heen. Het lijkt redelijk aan te nemen dat de manuscripten die we tegenwoordig kennen slechts een klein deel is van wat er ooit circuleerde. Zoals Fonds Mexicain 381 aantoont, werden dit soort werken in de praktijk geconsulteerd voor personen die richting zoeken aan het leven. De Spaanse almanak vond haar nieuwe bestemming als lokaal aangepaste levensgids in koloniaal Mexico.

Curriculum Vitae

Ilona Heijnen was born in Bergen op Zoom, the Netherlands, on March 3rd 1984. She entered Leiden University in 2003 to study Art History. In 2004 she enrolled in the Bachelor's program of Archaeology and was drawn to archaeology and history of the Caribbean region and Mesoamerica. During the Bachelor's program she participated in an excavation and ethnographic research in the Dominican Republic and Mexico. She received her Bachelor's degree with a thesis that discussed the Mesoamerican steam bath, or *temazcal* from an archaeological, historical and ethnographic perspective. During her Master's studies she was introduced to Classical Nahuatl and colonial manuscripts. She received her Master's degree in 2009 with a thesis that was an initial study of the Nahuatl manuscript ms 3523-2.

In September 2010 she enrolled in the PhD trajectory provided by one of Leiden University's Research Area, "Global Interactions of People, Cultures and Power", a collaboration of the Faculties of Archaeology, Humanities and Social Sciences. under the supervision of Prof. dr. M.E.R.G.N Jansen. As a PhD-student she organized a symposium entitled "Canon on the Move: a Symposium on Texts and Transformation" (Leiden University, 2013). Furthermore, Ilona taught Research Master classes and presented at international symposia such as the Convegno Internazionale di Americanistica (Perugia, 2015) and a symposium organized within the ERC project "Europe and America in Contact" (Warsaw, 2016).