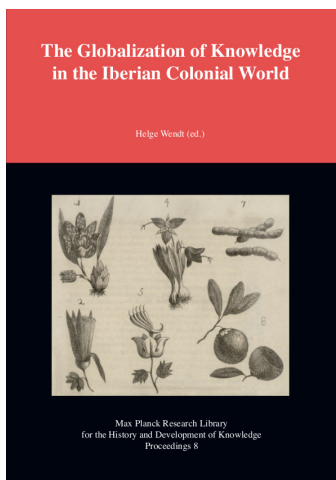


Max Planck Research Library for the History and Development
of Knowledge

Proceedings 10

Emma Sallent Del Colombo:

Transferring Natural Knowledge in Early Colonial New Spain from Franciscan
Sources: Motolinía's *Historia de los Indios de la Nueva España* (1541–1569)



In: Helge Wendt (ed.): *The Globalization of Knowledge in the Iberian Colonial World*
Online version at <http://edition-open-access.de/proceedings/10/>

ISBN 978-3-945561-07-2

First published 2016 by Edition Open Access, Max Planck Institute for the History of Science under
Creative Commons by-nc-sa 3.0 Germany Licence.

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

Printed and distributed by:
Neopubli GmbH, Berlin

<http://www.epubli.de/shop/buch/53870>

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

Chapter 5

Transferring Natural Knowledge in Early Colonial New Spain from Franciscan Sources: Motolinía's *Historia de los Indios de la Nueva España* (1541–1569)

Emma Sallent Del Colombo

Introduction

Fray Toribio de Benavente, Motolinía (ca. 1490–1569), arrived in New Spain in 1524 with the first expedition of friar minors, known as “the twelve,” headed by Friar Martín of Valencia (ca. 1474–1534).¹ He belonged to what we might call the first generation of Franciscan chroniclers. Together with Andrés de Olmos (ca. 1485–1571), the author of *The Chronicles of Michoacán* (xvi c.) and Bernardino de Sahagún (ca. 1599–1590), author of the *Historia general de las cosas de la Nueva España*, they gathered news about the peoples of New Spain, their customs and habits, as well as any information about natural history: animals, plants, minerals and *materia medica*. Several years later, Jerónimo de Mendieta (1525–1604) would draw from Motolinía's work, as well as that of others, when writing his *Historia eclesiástica Indiana* (ca. 1590–1604).

Thanks to the great wealth of information that they provide about pre-Hispanic populations, both Motolinía and Sahagún have been regarded as “avant la lettre” ethnographers and their work defined as “enquêtes ethnographiques” by historians such as Georges Baudot (1971)² and other authors of the French school. Edmundo O’Gorman, however, in his critical response essay to G. Baudot’s doctoral thesis, claimed that this view was, “though not totally inaccurate,” somewhat anachronistic in that it obscured the authors’ true purpose. He remarked sarcastically: “it is a little like calling the activities of marital love ‘gynaecological research’” (O’Gorman 1977, 377). More recently, Serge

¹In fact, they were not the first Franciscans to arrive in the New World. Before those who accompanied Cortés on his expedition, Pedro de Gante had arrived a year earlier along with Juan de Tecto and Juan de Aora.

²Miguel León Portilla has also called them “pioneers of anthropology”; see, for example: León Portilla (1999) and Bustamante (1989), among others.

Gruzinski has endorsed this point of view, stressing the political and strategic purpose behind these friars' efforts to gather so much information:

Les moines du Mexique ne sont pas des ethnologues avant la lettre ou des « pionniers de l'anthropologie » même si leurs enquêtes semblent s'apparenter à la recherche ethnographique. Le rapprochement est anachronique et il déforme le rôle historique que ces moines ont exercé au sien de la Monarchie. [...] Les savoirs qu'ils acquièrent et les interprétations qu'ils échafaudent ne cessent d'être étroitement soumis à des objectifs politiques et religieux, puis qu'ils ont mission d'effacer le paganisme et d'extirper les idolatries. (Gruzinski 2006, 182)

The ultimate aim of both Sahagún and Motolinía's writings was to put an end to what they saw as the Mesoamerican inhabitants' idolatry, and the basic way to do this was to accumulate knowledge. It was essential not to overlook any detail of social organization, politics, history, beliefs, languages, as well as botany, zoology, skills, "natural philosophy" (Gruzinski 2006, 183) and *materia medica*, in order to separate the acceptable from the unacceptable in the beliefs and behavior of the local population.

In Sahagún's case, the painstaking and encyclopedic collection of even the smallest pieces of information which might enable the new friars to seek out any trace of idolatry in the practices and discourse of the Indigenous population, as they slipped back into, or rather, never truly renounced their ancient divinities, is particularly striking. In comparison, Motolinía's *Historia* is more discursive and optimistic and less encyclopedic than Sahagún's. We shall return to a comparison of their work later on.

The "spiritual conquest" (Ricard 1986) would not have taken place, therefore, "sans des esprits intimement familiarisés avec le monde indigène" (Gruzinski 2006, 181). The information gathered by the friars was to prove very useful in planning the strategies to spread religious beliefs. Nonetheless, this process was not free of misunderstandings and transpositions, which only superficially seem to demonstrate the surrender of the local people to the new demands. The imposition of supernatural Christian elements on the Indigenous populations proved, as Gruzinski observes, easy and at the same time insuperable:

Aisée, parce qu'en dépit des distances considérables qui les séparaient, les deux mondes s'accordaient à valoriser le surnaturel au point d'en faire la réalité ultime, primordiale et indiscutable des choses. Insurmontable, car la façon dont ils le concevaient, différait à tous égards. [...] Sur la croyance, que d'une manière

générale les Indiens interprétèrent comme un acte, au mieux un transfert d'allégeance à une puissance nouvelle, supplémentaire. (Gruzinski 1988, 239)

Despite this and other misunderstandings,³ there was a transfer of techniques, knowledge and strategies between the local population and the newcomers. Motolinía's *Historia* gives us an idea of the knowledge, which circulated, flowed, was transferred and adapted.

In taking this step, one which Ricard (1986, 26) regretted not having taken in his book, namely that of considering the friars' works to not only be primary sources for the history of New Spain and its settlers, but also vehicles for the transmission of thought, keys to deciphering religious orders' control and power strategies, it also becomes clear that they are privileged witnesses of the resistance and voices of the local population, something which is harder to find in other types of work. The subject of *Historia* by Motolinía, or in general, the chronicles of religious orders in the New World, which are not thought *a priori* as works of natural history or medicine, contain indirect testimonies and clear traces of these sorts of practices. In other sources more focused on describing the preparation and practical uses of various substances or compounds, these traces can sometimes be impossible to gather. It could be said that the Indigenous voice creeps into the descriptions supposedly put together to instruct and control the local population and the missionaries. The missionaries had the task of taking care of the body in order to cleanse souls. We shall comment briefly on some general elements of the work before examining the particular aspects that interest us here.

Motolinía's *Historia de los Indios de la Nueva España*

Although the matter is still a topic of historiographical debate (O'Gorman 1977, 413), the work in the existing form, or in other previous works modified by other hands, is attributed to Friar Toribio de Benavente, known as Motolinía. The same author also left us *Memoriales*, which constitutes another version of *Historia*. According to Phelan (1973, 122), Edmund O'Gorman's edition/reconstruction of *Memoriales*, which includes fragments from *Historia* and some others from manuscripts handled by Alonso de Zorita⁴ as well as others spread around dif-

³Mignolo (1994). On the transposition of concepts, see also the introduction by Claudio Esteva-Fabregat, Motolinía (2001, 51).

⁴Alonso de Zorita was a judge and official at the Real Audiencia de Santa Domingo and later of New Spain. Baudot (1971, 21) remarked: "Parmi les chroniqueurs ayant usé (et abusé) de cet écrit, il en était un particulièrement important, en raison de l'extension de ses dettes à l'égard de l'ouvrage du franciscain: l'auditeur Alonso de Zorita. On avait de lui une *Breve relación de los Señores de la Nueva España* peut-être bien connue, mais son oeuvre principale: *Historia de la Nueva España*

ferent chronicles, constitutes ‘the edition’ and changes the preeminent role until now held by *Historia* in relation to *Memoriales*.

Basing himself on the biographical writings by José Fernando Ramírez, O’Gorman put forward a list of reasons for questioning the attribution of *Historia*, as we know it today, to Motolinía.⁵ In his opinion, it should rather be seen as a text based on this author’s writings. The fundamental reasons that he gives are: errors with Náhuatl etymology, errors with events in the Franciscan calendar and several anomalies in the text of *Historia*. Given that our concern here is not of a philological nature, but relates to gathering relevant information about the circulation and transmission of practices and *materia medica*, we have used the most recent edition of *Historia* for the present study, edited by Claudio Esteva-Fabregat (Motolinía 2001, 5–50).

Motolinía vs. Sahagún

It is not our aim here to discuss Sahagún’s work and we shall restrict ourselves to remarking on some parallelisms and divergences in the two Franciscans’ works, which might prove useful for a better understanding of the extracts from Motolinía.⁶ Neither of the two works came to light until long after they were put together⁷ and the philological-historiographical reconstruction of the different versions and even their authorship remain an ongoing historiographical problem, as we previously commented on with regard to Motolinía.

In Sahagún’s case, the manuscripts were actually scattered, brought together again and finally withdrawn from circulation by royal order in order to prevent the diffusion and resurgence of the idolatrous knowledge that the author had striven to combat in the first place.⁸ To try to explain the publishing difficulties faced by these works, Ricard introduced some linguistic considerations related to the imposition of teaching Spanish to the Indigenous population. This measure was unpopular with the friars, who argued that they were already struggling to cope

n’avait été éditée que pour un quart de son texte. Déjà en 1931, le P. Atanasio López tentait une esquisse de reconstruction de l’ouvrage de Motolinía, aidé par ce quart de texte (Primera Parte), et signalait l’énorme intérêt de poursuivre dans cette voie quand on aurait la possibilité d’extraire des trois autres parties inédites du MS. de Zorita les abondantes et précises références à Fray Toribio.”

⁵Ramírez (1859). O’Gorman cites the 1957 edition, p. 166.

⁶For a detailed study of this case as an example of the creation and circulation of scientific knowledge around the Colegio de Santa Cruz de Tlatelolco in the context of convents as scientific spaces in the XVI Century New Spain, we recommend Pardo-Tomás (2013).

⁷For the various editions of Motolinía’s work, see Motolinía (2001, 51–53).

⁸Gruzinski (2006, 184) writes on this subject: “La Couronne alarmé de voir circuler informations, décide de confisquer les manuscrits et geler les enquêtes.” Gruzinski continues in a footnote: “Ce qu’exige en avril 1577 le roi Philippe II quand il interdit que l’oeuvre de Sahagún circule ou s’imprime et qu’il ordonne au Viceroy.”

with all the other tasks given to them, and in all likelihood saw the added linguistic divide as a means of containing and controlling the local population. Moreover, the ban on publishing in Náhuatl and other languages undermined the friars' strategies for developing closer ties with local people (Ricard 1986, 126). All of this occurred, despite the declared interest in Sahagún's *Historia general de las cosas de la Nueva España* for the purposes of the Inquisition (Gruzinski 2006, 184).

Sahagún and Motolinía, disagreed, however, over how to achieve this aim and the former launched several tirades against the twelve friars who, having been duped by the "vulpine" attitude of the Indigenous population, had not had the wit to make use of "serpentine prudence":

He was often vexed by the contradictions that he was made to suffer from back in his teaching days in Tlatelolco, first by those who challenged the teaching given there to the Indians and later by members of the church, when he turned his attentions to researching the antiquity of the land, a long time before receiving, it would seem, the order from P. Toral to write *Historia*. How far they went may be inferred from what he says in the prologue to book VI: "In this book it will become clear to see that those emulators who have claimed that everything written in these books before and after this one is fiction and lies, talk like fanatics and liars." It is very striking that that he hits out not once but several times at the first twelve clerics, accusing them of lacking *serpentine prudence*, and holding them responsible for the false conversion of the Indians. (García Icazbalceta 1896, 283)

García Icazbalceta⁹ also raised some very interesting questions in relation to the controversy:

Did he have any particular grudge against them? Did they take part in the contradictions? There is no information to make any claims: what we discover is that Sahagún's opinions were entirely opposed to those of Motolinía. The latter was wary of unsettling the Indians by seeking out idols (p. 284) that they had forgotten about, as if they had been around a hundred years ago.¹⁰ (García Icazbalceta 1896, 283)

⁹Joaquín García Icazbalceta (1824–1894). Mexican, writer, historian and bibliographer.

¹⁰The paragraph by Motolinía to which Icazbalceta refers is about "digging up idols." See Motolinía (2001, 299 [455]).

The Order's internal tensions, partly revealed by the difficulties in the preparation of Sahagún's work, culminated in Sahagún's denouncement of a calendar attributed to Motolinía before the Inquisition in 1572, four years after the death of the last of the 'twelve':

[...] the contradiction did not end there, but took on greater substance after Fr. Toribio compiled an indigenous calendar, which Sahagún proposed should be impugned. He did so in very harsh terms, as can be seen in the appendix to book IV of *Historia* and in the prologue to *Arte Divinatoria*, (2) where he says that he wrote a condemnation of a newly invented calendar, made by the first friars themselves, with one in particular, (3) "Confuting it and proving very effectively the fabrication created and the fiction with which these first preachers were deceived." He had already stated in the appendix to book IV that it was all "false, totally false, mere fiction, a great lie and a very harmful falsehood."¹¹

García Icazbalceta concluded by virtually "accusing" Sahagún of betraying one of the most relevant "apostles." The underlying cause of the controversy is unknown, but we believe it is worth reflecting on the denouncement of the "overly optimistic" attitude of Motolinía's account, which did not perhaps share the need to publicize some of the Order's failures in the conversion effort.¹²

Accepting that the Indigenous population had returned to idolatry or, worse still, had never really abandoned it, implied, in reality, acknowledging the failure of the first friars' efforts, something that Motolinía did not appear to be ready to agree to, let alone divulge. In the context of conversion strategy, we believe that Motolinía should not be regarded as being "naive" but rather as a strategist. He considered the friars' task to be huge and although he thought it vital to denounce the outrageous treatment of the Indigenous population by the Spanish, he believed that harsh criticism like Sahagún's could undermine the work undertaken at such high personal cost by the Franciscan fathers, and even demotivate those called upon to carry out their mission.

With regard to the overall strategy for converting, the key role of knowledge and expertise related to *materia medica* and natural history can be seen. Accordingly, we shall now try to trace the circulation of skills and knowledge vital for

¹¹García Icazbalceta (1896, 283). Icazbalceta explained that he had information suggesting that Motolinía was the father referred to. The document would be published in Baudot (1991) years later. Gruzinski (2006, 231) also refers to this fact.

¹²This interpretation could provide arguments for understanding the open rejection of and bitter controversy with Las Casas de Motolinía. See "Investigaciones sobre el origen y motivos de sus disidencias con De Las Casas" for a scholarly and detailed discussion of the subject in Ramírez (1859).

structuring the strategy of spiritual conquest and maintaining political control, which, as we remarked on earlier, fed off a knowledge of local culture and the transmission of knowledge brought from the Old World.

In the next paragraphs of this work we will therefore analyze the elements of Motolinía's *Historia* that enable us to outline more clearly the natural history and New Hispanic medicine of the first half of the sixteenth century. Central to this analysis of these aspects will be the concepts of cultural misunderstanding, appropriation and transposition, all of which are useful interpretative keys for understanding how the global strategy of the clergy in New Spain was put into practice.

Medical Practices: Bloodletting, Surgeons and Midwives

The difficulties that the first friars found in transferring supernatural Christian concepts to the Indigenous population are diametrically opposed to the ease with which they managed to adapt technical and traditional knowledge; Gruzinski thus defines it as: "La mobilisation des savoir-faire indigènes" (2006, 88). He cites Motolinía:

En 1543, le chroniqueur franciscain Motolinía dresse un bilan enthousiaste : « On ne comptait plus les Indiens forgerons, serruriers, fabricants de freins, couteliers ». Depuis que le charpentiers sont arrivés d'Espagne avec leurs outils, les Indiens travaillent comme les Espagnols » en acquérant les techniques européens, les « naturels » se familiarisent avec de nouvelles matières : la laine, le cuir, le fer, le papier, les pigments d'origine espagnole. (Gruzinski 2006, 89)

He highlights the friars' role in the acquisition of these skills by the Indigenous population, referring in particular to the chapel of San José de los Naturales in San Francisco, Mexico:

De façon aussi paradoxale qu'inattendue, les Indiens font apprentissages, grâce à l'appui des hommes d'Eglise, en principe exclusivement voués à l'action missionnaire. Si les moins soulignent si souvent l'« habilité » des Indiens dans les « métiers manuels », s'ils sont si conscients de la valeur des traditions artisanales des indigènes et admirent tant leur savoir-faire, c'est bien qu'ils ont joué un rôle déterminant dans la transmission des nouvelles techniques européennes ou dans l'adaptation de celles qui existaient déjà à leur arrivé. (Gruzinski 2006, 89)

The Indigenous population swiftly mastered the artisanal and artistic techniques of the metropolis that overlapped and enriched local skills and practices, which were in turn reinterpreted by the Spanish, who were forced to adapt to the lack of certain facilities which life in the New World entailed.

An example of such shared or appropriated practices appears in the description of the type of sacrifices that the Indians undertook to honor their gods:

As well as the sacrifices and these festivals, there were many other particular ones which they held constantly, especially those ministers that the Spanish called popes. These made sacrifices on many occasions of parts of their own bodies, and in some celebrations made above their ears using a small black stone knife [a hole] which they took out like a blood lancet, and so sharp and with such keen edges; (Motolinía 2001, 104 [103])

The blood lancet was one of the instruments used to cut very finely. Other utensils used were wheat reeds or the tips of *maguey* or *metl*:

Returning to the matter at hand, I say: that through that hole which they made in their ears and in their tongues they passed a reed as thick as the finger of a hand, and as long as an arm; many of the common people, both men and women, pulled through or along the ear or the tongue straws as thick as wheat reeds, and others tips of *maguey*, or *metl*, (which will be explained at the end), and everything that they took out was bloodied, and the blood that they were able to collect in some papers, they offered before the idols. (Motolinía 2001, 104 [103])

The Spanish appropriated the sharp instrument and used it to let blood with varying degrees of success. In the New World, they had to adopt practices “that in Spain would not be deemed worthy of being learnt”:

[...] and thus many Spanish are bled and bleed others with them, and they cut sweetly, though occasionally they become blunted if the bloodletter is not a good one; over here everyone makes sure

they know how to let blood and brand and many other skills.¹³
(Motolinía 2001, 104 [103])

Motolinía devoted several pages to the Indians' sacrifices to their gods. Without giving too many technical details, he comments on the utensils used to remove hearts, which were not sharp like the blood lancet, and mentions that a very large number of victims were subjected to such "operations."¹⁴

The dividing line between ritualistic procedures and practices with medical purposes is blurred, and any therapeutic connotations are not always obvious. There are certainly references to the intervention of native surgeons, at least on the battlefield:¹⁵

They had respected people available to take care of people wounded during battle, who saw to everything and carried them to where the surgeons were with their medicines, and there they healed and cared for them. (Mendieta 1973, 79)

What does seem clear is that anatomical dissections, a standard practice among metropolitan physicians and surgeons in the sixteenth century, were also performed in New Spain.¹⁶

It is not easy to know the customs of the local population in regard to these types of practices, as once again we have to rely on the written accounts of missionaries. This being the case, it is necessary to screen the information left by them with the awareness that what they chose to transmit was conditioned by their own particular ends.

¹³The lancets were also used for shaving and cutting hair. See Mendieta (1973, vol. II, 36): "And they quickly produce from these stones, in the manner described, about twenty or more knives. These have almost the same handiwork and shape as the lancets with which our barbers let blood, except that they have a spine running through the middle and are charmingly somewhat curved at the end. They'll cut and trim beards and hair with them and the first time and the first cut, with more or less a sharp blade; but at the second cut they lose their edge, and then it takes several times to shave off the hair or the beard, although in truth they are cheap, and they'll give you twenty of them for a real. Finally, Spanish lay people and clerics have shaved with them on many an occasion."

¹⁴In Mendieta (1973, vol. I, 62) we also find a description of these practices: "and then they raised them up in their temple, where with great care the "Pope" (which they called *Papaua*) and priests dressed up in their emblems, laid them out, breaking their backs on a slab that had been erected for it; and then with a flint made of wood for making knives, this Pope struck him in the chest so skilfully that the heart came out, and was shown to him before he died, and they offered it later to the sun and the idol in whose honour they were making the sacrifice [...] And so that they would not feel death so much, they gave them some concoction to drink, which seemed to dull their senses and allow them to go happily to their death."

¹⁵On pre-Hispanic medicine in Mesoamerica, see Montellano (1990) and López Austin (1988).

¹⁶Pardo-Tomás (2012, 186–196). See also López Austin and Viesca (1984) and Viesca Treviño (1986, 1998, 2003).

Births and the role of women in them are another example of health care practices of particular interest in Motolinía's account¹⁷: midwives were everywhere, since all women had the necessary knowledge to assist in births. They washed their children in cold water and many reared in this way were known to grow up "well and healthy." Spanish women, by contrast, "brought to delivery too soon and under duress" were put at risk and "left worn out and shattered" and in many cases could not give birth again:

If one of these Indians is giving birth, she has the midwife close to hand, because they are all midwives; and if its her first time, she goes to a neighbor or relative for help, and waiting patiently for nature to take its course: they give birth with less work and pain than our Spanish women, many of whom for having being put to deliver too soon and straining hard, have been put at risk and are left worn out and shattered, unable to give birth again; and if the children are two in one womb, they are not given milk for a calendar day, or in some places two, and the mother takes them afterwards, one in each arm, and breastfeeds them, and they do not die, nor do they look for a wet nurse to suckle them, and later on each awakes to her breast; not even for the birth do they have *torrejas* ready, or honey, or other gifts, but rather the first thing she graces her children with is a wash in cold water, without fear of harming them; and with all this we see and know that many such babies brought up naked like this live to be well and healthy, and handsome, robust, strong, happy, nimble, and with all the skills required of them; and most importantly of all, seeing that they have come in God's knowledge, they have little to prevent them from following and keeping the life and law of Jesus Christ. (Motolinía 2001, 129 [140])

In addition, there female "experts" who were also consulted in order to obtain potions, herbs or other substances, for interrupting pregnancies.¹⁸ These figures—who appear in Motolinía's account as assistants in the *autos sacramentales*

¹⁷Sahagún (1830, 36) also talks of the skills of a typical woman devoted to medicine: "she is very familiar with the properties of herbs, and roots, trees and stones, and has great experience in knowing them, and is not unaware of many secrets of medicine. She who is a good physician knows very well how to cure the sick, and for the good she does them she almost brings them back from death to life, seeing that they recover or convalesce, with her cures. She can let blood, administer a purge, give medicine, apply ointment to the body, soften hardness in it by palpating it, reset bones, lance and heal well ulcers, gout, the evil eye, and cut away skin that remains stuck to the bone [...]"

¹⁸Another interesting reference in Sahagún's description of the "Adulterous woman": "The adulteress [...] has bastard children, and with potions she is made to vomit and miscarry [...]" Sahagún (1830, 37).

(allegorical religious plays) performed in New Spain¹⁹ and the way they are portrayed by the author offer us an interesting connection with the study by Angélica Morales Sarabia.²⁰ As Morales Sarabia points out, this was a process of the construction of ignorance, which penalized and ultimately succeeded in consigning this knowledge, patrimony of the Indigenous population's medical practices, to oblivion.

Attitude Towards Illness

Motolinía also describes the different attitude of the Indians and the Spanish towards illness. With regard to the differing outlook of the two groups, he compared some “Indians” who were “very uncomplaining” with some Spaniards who ruined themselves to pay for the apothecary and the physician:

If some [Indian] has a headache or falls ill, if some physician might easily be found among them, they go to see him, without much fuss or cost, and if not, more patience than Job; it is not like in Mexico, where when a neighbor who is suffering and dies, having been in bed for twenty days, has to use all his fortune to pay for the apothecary and the physician, leaving hardly anything for the burial; and with all the funeral orations and pauses and vigils that strip away so many entitlements, or torts, that his wife is left in debt, and if the wife dies the husband is left helpless. I once heard a married man, a wise man, say that when either of the couple fell ill, with death being a certainty, then the husband should kill the wife, or the wife kill the husband, and one should strive to get the other buried in any cemetery so as not to end up being poor, alone and in debt; these people spare themselves all of these things. (Motolinía 2001, 128–129 [139])

It is worth highlighting the presence of native physicians who did not restrict themselves to healing the Indigenous population, but who also cared for and healed the Spanish (Motolinía 2001, 182 [252]). These practices also took place in particular places of medicine, such as hospitals, as we shall see in the next section.

The healing methods, in which the friars played the leading role, had a component, which, as we shall now see, sometimes went beyond the powers and realms of nature. Gruzinski stated—referring in particular to Franciscans like

¹⁹See, for example, Schuessler (2009). For a well-documented study of performances of edifying theatre in Mexico, see Horcasitas (1974), cited in O’Gorman (1977, 381).

²⁰See chapter 7 by M. Sarabia.

Motolinía, Sahagún and the archbishop Montufar—that the first church was hostile to miracles, in keeping with an optimistic, even triumphalist conception of evangelization, which given the Indigenous population’s keenness to receive the faith, rendered any miraculous intervention superfluous, and even saw in it the secret but unquestionable influence of Erasmism. He acknowledged, however, that miracles hardly waited for the closing of the Council of Trent or the arrival of the Jesuits or even the installation of the Holy Office (1571) to occur in Mexican territory. “The first Franciscans themselves had visions, practiced levitation and revived some dead, contrary to the assertion of Motolinía” (Gruzinski 1988, 190).

As we mentioned earlier, this viewpoint warrants some qualification. Although we share, of course, the idea that the “hagiography of miracles” continued *in crescendo*²¹ as the sixteenth century wore on, we do not feel that Sahagún and Motolinía can be viewed in the same way, since it was precisely this “optimistic” attitude that was heavily criticized by the former, and, in fact, Motolinía himself put forward different cases of miraculous healing in his *Historia*.

Although the friars treated the superstitious attitudes of the local population with suspicion and condemned them, they frequently resorted to miracle cures and many other series of actions that had to do with supernatural intervention. These practices were often related to the administering of sacraments such as baptism or confessions before dying:

The constant and biggest work done with these Indians was in confessions, because they are so continuous that the whole year is a lent, at any time of day and in any place, both in churches and on pathways; and above all it is the never-ending sick people; whose confessions make a lot of work; because as illnesses offend them, and many of them never confessed, and charity requires that they be helped and laid out like someone who is *in articulo mortis* so they may go to their salvation. Many of them are deaf, others covered in sores, and confessors in this land, by the way, cannot be delicate or squeamish to suffer this role; and many days there are so many sick that the confessors are like Joshua praying to God that he should hold back the sun and lengthen the day so that they may finish taking confession from the sick. [...] what is baptising, marrying, confessing if not marking servants of God, so that they are not harmed by the avenging angel, and those who are marked may work to defend and deliver them-

²¹ This is also very evident in the Augustine case. Compare the Chronicle by Juan de Grijalva with the continuation by Esteban García (1918).

selves from their enemies to prevent them from consuming them and finishing them off? (Motolinía 2001, 215 [306])

Baptism was another of the moments in which religious practice and care for the sick coincided (Motolinía 2001, 158 [202]): “not only on Sundays or days that are set aside for this, but also on any normal day, children and adults, the healthy and the sick, from every region” came to be baptized:

Thus many have come, and many from far away, to be baptised with children and wives, the healthy and the sick, the lame and the blind and the dumb, dragging themselves and suffering very hard work and hunger because these people are very poor. (Motolinía 2001, 160 [205])

Public interventions were also made on requirement with important members of the local aristocracy:

In Mexico, a son of Motezuma’s asked to be baptised, who was the great lord of Mexico, and as his son was ill, we went to his home, which was right where the church of San Hipólito is now built, [...] They brought out the sick man to be baptised on a chair, and when during the exorcism the priest said: *ne te lateat sathana*, not only the sick man but also the chair in which he was so upright started to shake in such a way [...] (Motolinía 2001, 158 [202])

On other occasions the miracle was achieved with the “habit and cord of San Francisco (Saint Francis)”:

[...] this people of natural Indians is so hunched over and silent that for this reason they are unaware of the many [196] and great miracles that God works amongst them, more than I see coming to wherever [there is] a house of our father San Francisco many sufferers from all kinds of illnesses, and many very dangerous ones, and seeing them returning so joyfully recovered and healthy to their homes and lands, and I know that in particular they feel special devotion to the habit and cord of San Francisco, with whose cord many pregnant women have delivered themselves from very dangerous births, and this has taken place in many villages and many times; and here in Tlaxcala it is very common, and only a few days ago we had experience of it; for this reason the gatekeeper has a cord to give to those who come asking for it, although I rather believe that the devotion that the cord enjoys is as much at work as the virtue that lies

in it, although I also think that the virtue is not inconsiderable [...].
(Motolinía 2001, 195–196 [277])

The devotion to San Francisco and the friars was even capable of reviving the dead:

In a village called Atlacubaya [now Tacubaya, a *colonia* or neighbourhood of Mexico City], near Chapultepec, from where the water that flows to Mexico springs, which is a league away from Mexico, lay ill a son of a man named Domingo, a tezonqui by trade, which means carpenter or stoneworker, who along with his wife and children are devotees of San Francisco and his friars; one of his children of about seven or eight years old fell ill, [...] they came to our monastery invoking the name of San Francisco, and the worse the child's illness grew, the greater became the parents' insistence on requesting the saint's help and favour; and as God had ordained what was to be, he allowed the child Ascensio to die; he had died one day in the morning two hours after sunrise; and even though dead, his parents did not cease in floods of tears to call on San Francisco, in whom they trusted so much, and as it was now gone midday, they wrapped the child in a shroud, and before they did so many people saw the child was dead, and cold, and stiff, and the grave open. [...] his parents say today that they always had hope that San Francisco would resurrect the boy, obtaining God's pity for the boy's life. And since when it was time to take him for burial, the parents once again called on and prayed to San Francisco, the boy started to move, and they promptly started to untie and unfurl the shroud, and so came back to life he who was dead; [...] This miracle as I write it down here, I got from Friar Pedro de Gante [...]. (Motolinía 2001, 196 [278])

The friars used looking after the physical health of the Indigenous population as an excellent excuse to also take care of their spiritual health. Diverse conceptions of health and illness coexisted in the realms of medical practice.

Places of Medical Practice

Hospitals

Institutions of medical practice, such as hospitals, were fundamental elements in “the medicine of conversion” (Pardo-Tomás 2013; 2014a; 2014b), which gave the structures of the “architecture of conversion,” that is, church, atrium, open

chapels plus convents, schools and hospitals, a broader valence if they are regarded as spaces for communication and the circulation of knowledge and medical practices, instrumental in the “spiritual conquest of New Spain.” It is just one of the aspects of deployment that the monastic orders carried out with aim of conquering and converting the Indigenous population. A global understanding of the power of this deployment of means is not possible without a correlated analysis of the diverse aspects and practices which coexisted in these articulated spaces for the transfer of knowledge between missionaries and natives related to caring for the body, inseparable from caring for the soul.

The friars needed to develop strategies for attracting and involving the local population in their project of Christianization, with the participation of a series of figures who cooperated in educational-health tasks and the conversion of the native people. Territorial reorganization was one of the key elements in controlling areas and people, and in some cases artificial villages were even created to gather children together, given that they were so important in the task of conversion:

Fearing that, once returned to their families, the children brought up in monasteries would go back to paganism, a special village was set up for them, four leagues from Mexico, not far from Coyoacán, and there they were grouped around the convent, in such a way that they could easily keep the Christian faith intact in them.²²

The convents set up throughout New Spain and acceded to by diverse religious orders—“the friars also made sure that churches were built everywhere” (Motolinía 2001, 80 [59])—were places of repose and shelter for members of the Order; the convents and hospitals were also established, however, with the idea in mind of political control over this space, inextricably linked to the purpose of evangelizing, in order to both safeguard the health of clerics, troops and colonists, and accommodate the sick and the dispossessed.²³

The hospital was “reasonably well-equipped and prepared to care for the poor,” and had no reason to feel envious of Spanish hospitals.²⁴ There people responsible for collecting offerings, among which gifts of wax were particularly abundant and in sufficient quantity for a whole year’s supply (Motolinía 2001, 127 [137]). The alms delivered to the hospitals for the poor were not only given out *in situ* but were also distributed “a league around,” thus strengthening the centralization of power and control in the hands of the friars:

²²Ricard (1986, 235, note 22). Letter from the Audiencia de México to Carlos V, 14 August 1531, in CDIAI, XLI: 84ss.

²³For details of the role of the convent as a space for creation, mediation, communication and the circulation of medical knowledge, see Pardo-Tomás (2013).

²⁴For information on hospitals in New Spain see, for example, León-Portilla (1990); Ruiz-Llanos and Campos-Navarro (2001); Muriel (1956); Venegas (1973).

The first thing they did was prepare very good alms for the poor Indians, who not just settling for those that they had at the hospital, went around the houses a league around. They shared out many loads of corn, and many *tamales* (*typical dish consisting of a corn-based dough stuffed with meat or vegetables*) instead of *roscas* (*pastry in the shape of a large doughnut*), and the deputies and *majordomos* who went to distribute it refused anything for their work, saying that it was them who should offer their services to the hospital, rather than take from it. (Motolinía 2001, 135–136 [151])

The hospitals were also supported by donations from the Indigenous population, who worked in them and scoured the province in search of sick people.

The Indians have made many hospitals where they care for the sick and the poor and they provide abundantly for their poverty, because as there are many Indians, although they only give a little, a little bit from so many makes for a lot, and more so as it is continuous, and thus the hospitals are well supplied; and as they know how to serve so well that it seems they were born to it, they want for nothing, and from time to time they go all over the province to look for the sick.²⁵ (Motolinía 2001, 182 [252])

Of great interest to us is the fact that the native physicians working in the hospitals knew “how to apply many herbs and medicine” and in some cases had “so much experience” that they were even able to cure the Spanish:

They have their physicians, from among the experienced natives, who know how to apply many herbs and medicines, who are good enough for that; and among them some of them have so much experience that many old and serious illnesses, which Spaniards have suffered for many days without a remedy being found, have been cured by these Indians. (Motolinía 2001, 182 [252])

Nature and Naturalia

Materia Medica and Natural Histories

Sahagún’s work, in particular, but also Motolinía’s, with regard to the descriptions of natural history, represent, as Gruzinski argued, histories, in the sense the term “history” had at their time:

²⁵See also Bechtloff (1993).

The Covarrubias dictionary defines history in these terms: “in broad terms what is known as history is the history of animals, the history of plants, etc. And Pliny entitled his great work [...] natural history.”²⁶

One of the most obvious differences between the pages of Sahagún’s eleventh book devoted to *naturalia* and the fragments of natural history in Motolinía, is that Sahagún describes²⁷ in great detail the medicinal purposes of plants, minerals and preparations to treat this or that illness, in a way which is more reminiscent of a medical handbook.²⁸ Motolinía’s account, on the other hand, outlines the general uses of plants and rarely dwells on descriptions of medical particularities.

We would now like to focus on some fragments of the work directly related to *materia medica* and the transfer of knowledge to demonstrate the interest and richness of Motolinía’s “historia natural.”

Description of Natural Products from Here and Over There and Their Uses

We find in Motolinía’s descriptions examples of exotic Oriental *materia medica* being compared to Western material, probably gathered orally by some local “expert” or “connoisseur.” Interest is shown in the use of Western material as a substitute for oriental material:

Pepper trees are found in these hills, which differ from those of Malacar because it does not burn so easily nor is it fine; but it is a milder natural pepper than others. There are also cinnamon trees; it is whiter and thicker. (Motolinía 2001, 241 [354])

He also describes that Indigenous people used substances, such as sweetgum, which had “medicinal qualities,” thus transferring useful knowledge to the evangelizers and colonizers:

There are also many mountains of sweetgum trees, they are beautiful trees, and many of them very tall; their leaf is like the leaf of an ivy;

²⁶Sebastián de Covarrubias, *Tesoro de la lengua castellana o española*, (1611), edition Madrid Turner (1972, 692), cited in Gruzinski (2006, 182, note 9).

²⁷See, for instance, López Austin (1974).

²⁸García Icazbalceta (1896, 181) in his biography of Sahagún comments that it would be rather possible for Sahagún to have written a *Doctrina para los Médicos*. Sahagún was a teacher at the Tlatelolco College, where medicine was one of the subjects taught. García Icazbalceta writes furthermore that the Franciscan writer was keen on experimenting with Indigenous medicines. For proving his argument, the biographer refers to Sahagún, *Historia* (vol. III, 300, 303, 305). García Icazbalceta, nevertheless, was mistaken, as these pages refer to Sahagún’s description of experiments with metals and stones and no references to the teaching of Tlatelolco are made. See also Pardo-Tomás (2013).

the liquor that they get from it is named sweetgum by the Spanish, it has a smooth smell, and has medicinal qualities, and is valued by the Indians; [...] they mix it with its bark so that it will set, as they do not want it in liquid form, and they make loaves of bread wrapped in some large leaves, they use it for fragrances, and they also treat certain illnesses with it. (Motolinía 2001, 241 [354])

Or there was the prized balm that the natives “were already making before the Spanish came,” in particular “chilozuchil,” which “is already tried and tested”:

There are two types of trees from which balm comes and is made, and a big quantity is made from both types; from one of these types of trees, called the chilozuchil, the Indians make the balm and they were making it before the Spanish came; this one made by the Indians is somewhat more odoriferous, and does not go as dark as that made by the Spanish; these trees are to be found along the banks of the rivers which flow down from these hills to the North Sea, and not to the other side [...]. This balm is precious, and they use it to cure and heal many illnesses; it is made in few places; I think that is the reason that they still don't know these trees, in particular that chilozuchil which I believe to be the best; because it is already tried and tested. (Motolinía 2001, 241–242 [354])

Also of great interest is the role of the Franciscan friars as “acclimatizers” of European fruits and medicines, as in it we see the two-way transfer of knowledge and techniques:

There are wild cassia fistula (Golden Shower trees). [...] This tree was planted on Española Island by the friar minors, before anyone else planted them, and here in New Spain it is the friars who have planted nearly all the fruit trees, and persuaded the Spanish to plant them too; and they taught many to consume them, which is the reason why there are so many and very good kitchen gardens, and there ought to be many more; because seeing that the land produces a hundred times what they plant, the Spanish are very given to planting and consuming good fruit and well-regarded trees. (Motolinía 2001, 242 [355])

Many of the trees found in New Spain were not “known to the Spanish until (then).” An example was one variety of the maguey (agave) and its medicinal uses, which Motolinía himself claimed to have “seen being tried”:

It is very healthy for a slash or a fresh ulcer, taking one of its main ribs and throwing it on the embers, and taking the hot juice is very good for the bite of a viper; small *magueyes* should be used, the size of a palm, and the root is tender and white, and the juice taken and mixed with the juice of the wormwood of this land, and when the bite is washed, it heals; I have seen this being tried and being real medicine: that is, when the bite is fresh. (Motolinía 2001, 295 [444])

Motolinía mentioned also the sleep inducing and healing properties of the *picietl*:

There were [...] very many snakes; these were bound and the fangs, or teeth, removed, because the majority of them were of the viper variety, a fathom long, and as thick as a man's arm at the wrist. The Indians take them in their hands like birds because they have a herb for the wild and venomous ones which makes them sleepy or numbs them, which has many medicinal uses; this herb is called *picietl*. (Motolinía 2001, 132 [145])

This is a true natural history from which only a few fragments have been highlighted, and which can be grouped together in accordance with the “taxonomy” of “natural histories.”²⁹ They form part of the body of knowledge compiled by the friars, who used natural elements in their descriptions of information that was of possible use to other clerics in the task of evangelization, and of interest to the readership in the Old World, in the style of the Franciscan friar Diego Valadés’ *Rhetorica christiana*. Like this author, Motolinía had also set out to write not so much a catalogue, as an extensive account of natural things in New Spain:

I sometimes had it in mind to write and say something about the things that there are in New Spain, both natural and grown in it, like those that have come from Castile, how they have been made in this land, and I see that because of the lack of time this is patched up, and I couldn't properly satisfy the intention with which I had set out initially; because many times my thread is broken by necessity and the charity with which I am obliged to aid my fellows, who I am compelled to console at all times. (Motolinía 2001, 240 [351])

Conclusion

The fragments from the *Historia de los Indios de la Nueva España* that we have seen here reveal how very useful it is to look at this work from a different viewpoint, focused on tracing healthcare practices and *materia medica* in New Spain,

²⁹See José Pardo-Tomás, chapter 2 in this volume.

understood as a transfer of knowledge between the local population and the colonizers, and the key role of the medicine of conversion to understand the scope of the political and evangelizing strategy of the friars in the first half of the sixteenth century, in New Spain.

Motolinia's *Historia* has given us the opportunity to study the transfer of technics and knowledge between local population and newcomers. Through the analysis of medical practices, attitudes toward illness, spaces of medical practice, *materia medica* and natural history, we are able to consider how this knowledge was adapted and transformed in an intercultural process that could be understood as a part of a competition between systems of understanding trying to find their way to a common and systematized new order of information.

A central role in this dynamic system of production and adaptation of knowledge is played by the core concept of "conversion medicine," which takes into account both natural and supernatural experiences and activities carried out by friars in their spiritual conquest of bodies and souls.

This article forms part of a broader project, the aim of which is to study the chronicles of religious orders, also taking into account the first Dominican and Augustinian friars to reach New Spain, in order to outline a more complete and detailed overview of the religious strategies of spiritual conquest, and in particular, the dual role of evangelizers as healers of the body and the soul, and key players in the transfer of both medical-healthcare knowledge and natural knowledge.

Acknowledgements

This investigation has been carried out thanks to the funding of the project *Cultura médica novohispana: circulación atlántica, recepción y apropiaciones*, by the Spanish Ministry of Economía y competitividad [HAR2012-36102-C02-01]. I would like to thank José Pardo-Tomás and Helge Wendt for their very useful comments and suggestions.

References

- Baudot, Georges (1971). Les premières enquêtes ethnographiques américaines. Fray Toribio Motolinía: quelques documents inédits et quelques remarques. *Cahiers du monde hispanique et luso-brésilien* 17:7–35.
- (1991). Fray Toribio Motolinía denunciado ante la Inquisición por fray Bernardino de Sahagún. *Estudios de cultura náhuatl* 21:127–132.
- Bechtloff, Dagmar (1993). La formación de una sociedad intercultural. *Historia Mexicana* 43(2):251–263.
- Bustamante, Jesús (1989). *La Obra etnográfica y lingüística de Fray Bernardino de Sahagún*. PhD thesis. Madrid: Universidad Complutense de Madrid.

- García Icazbalceta, Joaquín (1896). *Obras de D. J. García Icazbalceta*. Vol. 3: *Biografías I*. Mexico: Imp. De V. Agüeros.
- Goijalva, Juan de and Esteban García (1918). *Crónica de la provincia Agustiniiana del Santísimo Nombre de Jesús de México*. Madrid: G. López del Horno.
- Gruzinski, Serge (1988). *La colonisation de l'imaginaire. Sociétés indigènes et occidentalisation dans le Mexique espagnol. XVIIe–XVIIIe siècle*. Paris: Gallimard.
- (2006). *Les quatre parties du monde. Histoire d'une mondialisation*. Paris: Édition de la Martinière.
- Horcasitas, Fernando (1974). *El teatro náhuatl. Épocas novohispana y moderna*. Mexico: UNAM.
- León-Portilla, Miguel (1990). Las comunidades mesoamericanas ante la institución de los hospitales para indios. In: *Historia General de la Medicina en México. Vol 2: Medicina novohispana siglo XVI*. Ed. by Gonzalo Aguirre-Beltrán and Roberto Moreno de los Arcos. Mexico: UNAM-Academia Nacional de Medicina, 217–227.
- (1999). *Bernardino de Sahagún: Pionero de la antropología*. Mexico: UNAM, El Colegio Nacional.
- López Austin, Alfredo (1974). The Research Method of Fray Bernardino de Sahagún: The Questionnaires. In: *Sixteenth-Century Mexico*. Ed. by Munroe Edmonson. Albuquerque: University of New Mexico Press.
- (1988). *The Human Body and Ideology: Concepts of the Ancient Nahuas*. Salt Lake City: University of Utah Press.
- López Austin, Alfredo and Carlos Viesca (1984). México Antiguo. In: *Historia general de la Medicina en México. Vol I*. Coord. by F. Martínez Cortés. Mexico: UNAM-Academia Nacional de Medicina.
- Mendieta, Gerónimo de (1973). *Historia Eclesiastica Indiana*. Madrid: Atlas.
- Mignolo, Walter D. (1994). Signs and Their Transmission: The Question of the Book in the New World. In: *Writing without Words. Alternative Literacies in Mesoamerica & the Andes*. Ed. by E. Hill Boone and W. D. Mignolo. Durham: Duke University Press, 222–227.
- Montellano, Bernardo Ortiz de (1990). *Aztec Medicine. Health, and Nutrition*. New Brunswick: Rutgers University Press.
- Motolinía, Toribio de Benavente (2001). *Historia de los Indios de la Nueva España*. Edición de Claudio Esteva Fabregat. Madrid: Dastin.
- Muriel, Josefina (1956). *Hospitales de la Nueva España. Fundaciones del siglo XVI*. Mexico: Editorial Jus.
- O'Gorman, Edmundo (1977). Al rescate de Motolinía: Comentarios al libro Utopie et Histoire au Mexique de Georges Baudot. *Revista de Indias* 37:375–424.
- Pardo-Tomás, José (2012). Opening Bodies in a New World: Anatomical Practices in Sixteenth-Century Spain. In: *Anatome: Scmposizione e raffigurazione del corpo fra Medioevo e Età Moderna*. Ed. by C. Pancino and G. Olmi. Bologna: Bononia University Press, 185–202.
- (2013). Conversion Medicine: Communication and Circulation of Knowledge in the Franciscan Convent and College of Tlatelolco, 1527–1577. *Quaderni Storici* 48(1):28–42.
- (2014a). “La medicina de la conversión”: el convento como espacio de cultura médica novohispana. In: *Geografías médicas. Orillas y fronteras culturales de la medicina (siglos XVI y XVII)*. Ed. by José Pardo-Tomás and Mauricio Sánchez Menchero. Mexico: Colección debate y reflexión, CEIICH-UNAM, 17–74.
- (2014b). Pluralismo médico y medicina de la conversión: Fray Agustín Farfán y los agustinos en Nueva España, 1533–1610. *Hispania* 74(248):749–776.
- Phelan, John L. (1973). Memoriales o Libro de las Cosas de la Nueva España y de las Naturales de Ella; by Fray Toribio de Benavente o Motolinía. Edmundo O'Gorman. Review by: John Leddy Phelan. *The Hispanic American Historical Review* 53(1):120–122.

- Ramírez, José Fernando (1859). *Noticias de la vida y escritos de Fray Toribio de Benavente ó Motolinía. [...] Acompañadas de investigaciones sobre el origen y motivos de sus disidencias con el illmo. Don Fray Bartolomé de las Casas*. Mexico: Edición para el autor.
- Ricard, Robert (1986). *La conquista espiritual de México: ensayo sobre el apostolado y los métodos misioneros de las órdenes mendicantes en la Nueva España de 1523–1524 a 1572*. Mexico: Fondo de Cultura Económica.
- Ruiz-Llanos, Adriana and Roberto Campos-Navarro (2001). Adecuaciones interculturales en los hospitales para indios en la Nueva España. *Gaceta Médica de México* 137(6):595–608.
- Sahagún, Bernardino de (1830). *Historia General de las cosas de Nueva España*. Ed. by Carlos M. de Bustamante. Vol. 3. Mexico: Imprenta del Ciudadano Alejandro Valdés.
- Schuessler, Michael K. (2009). *Artes de fundación: Teatro evangelizador y pintura mural en la Nueva España*. Mexico: UNAM.
- Venegas, Carmen (1973). *Régimen hospitalario para indios en la Nueva España*. Mexico: Instituto Nacional de Antropología e Historia.
- Viesca Treviño, Carlos (1986). *Medicina prehispánica de México: El conocimiento médico de los nahuas*. Mexico: Panorama.
- (1998). *Medicina prehispánica de México*. Mexico: Panorama.
- (2003). La medicina náhuatl. In: *Historia de México. Vol 1: México Antiguo*. Ed. by L. Ochoa. Mexico: Planeta.