THE SOCIAL AND CULTURAL CONSTRUCTION OF MEDICINE IN NEW SPAIN:

THE HOSPITAL OF SAN JOSEPH DE LOS NATURALES IN MEXICO CITY, 16TH CENTURY

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The Royal Hospital of San Joseph de los Naturales in Mexico City was founded in the mid-16th century to provide medical and spiritual care to the Indians; its opening meant the creation of an institutional space in which the European and Mesoamerican medical systems were related. This article studies the political and social conditions that shaped this site and highlights the intercultural dialogue that took place inside it, which meant a fundamental contribution to the construction of a properly New Spain medical model.

Key Words: New Spain; Hospital; Natives; 16th Century

LA CONSTRUCCIÓN SOCIAL Y CULTURAL DE LA MEDICINA EN LA NUEVA ESPAÑA: EL HOSPITAL DE SAN JOSÉ DE LOS NATURALES EN LA CIUDAD DE MÉXICO, SIGLO XVI

El Hospital Real de San Joseph de los Naturales de la Ciudad de México fue fundado a mediados del siglo XVI para brindar atención médica y espiritual a los indios; su apertura significó la creación de un espacio institucional en el que se relacionaron los sistemas médicos europeos y mesoamericanos. En este artículo se estudian las condiciones políticas y sociales que configuraron este recinto y se destaca el diálogo intercultural que se entabló en su interior, el cual significó una aportación fundamental a la construcción de un modelo médico propiamente novohispano.

Palabras claves: Nueva España; Hospital; Indios; Siglo XVI

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1. Introduction

n the mid-16th Century, the population of New Spain was immersed in a social dynamic which sought to divide the population jurisdictionally in two groups: Indigenous People and Spaniards. This in turn created the need to create institutions meet the needs of each group. This article examines the specific case of an establishment founded under this policy of legal differentiation: Hospital Real de San Joseph de los Naturales, in Mexico City. Health care to address high mortality in the indigenous population, driven by epidemics and efforts to evangelize the survivors, found a space for interaction in Hospital de Naturales. This fact is significant for the study of similar spaces in the Americas which appeared early in the colonial period, given that hospitals, due to their institutional nature, were establishments which assumed various political, administrative, and social functions which furthered the organizational process in the emerging viceroyal system. The purpose of this article s to study the political, social, and cultural forces which shaped certain aspects of Hospital de Naturales and the medical care it provided, since it was founded in a period when various factors converged, among them the debate over the legal definition of the two republics, the process of evangelization of the indigenous population, the health emergency triggered by massive epidemics, and the early exchange of medical knowledge. Accordingly, two key questions in this investigation are: How was the social and cultural context of indigenous medicine delimited so that it could be accepted within galenical parameters? and How did the process of acculturation of medicine unfold at Hospital de San Joseph? In our attempt to answer these questions,

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¹ Doubts like a question which had been raised by Serge Gruzinski: «how to decipher the secret order or occult alchemy of these mixtures, when none of them is exactly a replica of the preceding one or that

we have used disperse materials from the 16th Century which have survived to this day by varied means, since 16th Century institutional documentation from Hospital de Naturales has been lost.

Historical study of hospitals in 16th Century New Spain have examined the subject from various angles, most prominent among them the social welfare perspective seen in the master work by Josefina Muriel, Hospitales de la Nueva España², the historical and medical approach which has focused on examining the practice of medicine in such establishments³, and the architectural perspective⁴. However, more recently, new research has been undertaken on hospitals in New Spain working with different approaches and new methodologies⁵. This recent surge in historiographic interest forces us to raise new questions taking into account that the hospital is a mirror on the society in which it operates. In the hospitals of New Spain, varied interests of power blocs, civilian and ecclesiastic, coexisted, converging with the interests of the least favored social sectors in viceroyal society. As a result, hospitals provide an opportunity to examine mechanisms of socialization among such groups. This, in turn, creates the need to review and analyze what has been written about hospitals in New Spain and propose new research questions and ideas about them.

This article is divided in four sections. The first, entitled «A society divided», explains the early policy of separating the population of New Spain in two sectors: Indigenous and Spanish. The second, entitled «Hospital Real de San Jose Naturales», focuses on analyzing the institutional development of hospitals in the Christian world at large and on the

which follows it? », Gruzinski, Serge, El pensamiento mestizo. Cultura amerindia y civilización del Renacimiento, Paidós, Barcelona, 2007, p. 328.

² Muriel, Josefina, Hospitales de Nueva España. Tomo I. Fundaciones del siglo XVI, Institute for Historical Research, Mexican Red Cross, Universidad Nacional Autónoma de México, México, 1990. Under the same heading we can also classify the works of Oliver Sánchez, Lilia V., El Hospital Real de San Miguel de Belén 1581-1802, Universidad de Guadalajara, Guadalajara, 1992, and Sánchez Uriarte, María del Carmen, Entre la misericordia y el desprecio. Los leprosos y el Hospital de San Lázaro de la ciudad de México 1784-1862, Universidad Nacional Autónoma de México, México, 2015.

³ On this subject, see the works of Rodríguez-Sala, María Luisa, El Hospital Real de los Naturales sus administradores y sus cirujanos (1531-1764) ¿miembros de un estamento profesional o de una comunidad científica?, Universidad Nacional Autónoma de México, Institute for Social Research, Mexico, 2005, and Romero Huesca, Andrés and Ramírez-Bollas, Julio «La atención médica en el Hospital Real de Naturales», Cirugía y cirujanos, vol. 71, n 6, november-december 2003 (pp. 496-503).

⁴ As an example, see the work of Báez Macías, Eduardo, El Edificio del Hospital de Jesús, Universidad Nacional Autónoma de México, Institute for Esthetic Research, México, 2010. The first edition of this book is from 1982.

⁵ In this sense, it is relevant to cite the master's degree thesis in history presented by García García, Julieta, «La fundación del Hospital de la Caridad de San Hipólito en la Ciudad de México (1566-1572) », Universidad Nacional Autónoma de México, School of Philosophy and Letters, 2017. Also see the master's degree thesis by Santillán Cortez, Ulises, «'Médicos son de las ánimas' Atención hospitalaria en la Ciudad de México a través de la religiosidad novohispana», Universidad Nacional Autónoma de México, Posgrado en Ciencias Médicas, Odontológicas y de la Salud Historia de la Salud, Campo del Conocimiento en Humanidades en Salud, 2021. Also see Martínez Barbosa, Xóchitl, «El Hospital que no existe de hecho, pero si de derecho: la supresión del Hospital de San Juan de Dios de la Ciudad de México, 1821-1826», in coord. Martínez Hernández, Gerardo, Medicina y sociedad: Saberes, Discursos y Prácticas. Siglos XVI al XX, Universidad Nacional Autónoma de México, México, 2019 (pp. 239-249). Also see the contribution of Pardo Tomás, José, «Hospitals in Mexico City in the 16th Century: Conversion medicine and the circulation of medical knowledge», in eds. Polonia, Amelia, Bracht, Fabiano and Conceição, Gisele, Connecting Worlds: Production and circulation of knowledge in the First Global Age, Cambridge Scholars Publishing, Newcastle, 2018 (pp. 154-182).

particularities of Hospital Real de Indios in Mexico City. The third, called «Medical practice and mestizaje in medicine at Hospital Real de Indios», discusses the generation and exchange of medical knowledge which may have occurred at Hospital de Indios. Finally, we present a series of conclusions on Hospital de Indios in particular and hospitals in New Spain in general.

2. A society divided

The fall of Tenochtitlan in August 1521 marked the start of a new phase in the history of the peoples involved in the War of Conquest. This period was characterized by the formation of a society which entailed unprecedented challenges. The Spaniards attempted to implement the forms of order and control in place on the Iberian Peninsula, but indigenous societies were a *tabula rasa* on which they would have to implement untested methods of governance. The political, social, and religious organization theretofore known to the conquistadors was delineated by the Greco-Roman, Christian, and Muslim traditions. The superimposition of a similar order in newly discovered lands gave rise to debates over the evangelization, enslavement, eradication, and conceptualization of native people. In the mid-16th Century, the population of New Spain was immersed in a dynamic of legal and political reorganization which divided the population into two main groups: Spaniards and Natives.

America's incorporation into Western history required the implantation of civil and religious institutions which would form the organizational underpinnings of the new colonial societies. In the mid-16th Century, the institutionalization of New Spain entered a more advanced stage of consolidation. In those years the descendants of the first encomenderos were faced with a decision by the Crown to restrict the power of the encomienda, which had disposed of indigenous populations as best suited its interests⁶. The issue substantially altered the viceroyal administration and led the sons of the conquistadors to find new forms of social positioning through their insertion in the emerging bureaucratic class. In parallel, the crown and some religious orders were making concerted efforts to preserve the indigenous population, which was being decimated by the encomienda model of exploitation and by epidemics caused by diseases imported from the Old World.

The Spanish authorities decided to regulate the coexistence of both cultures by separating the population into two republics: one of Natives and another of Spaniards. Indigenous society was a single structure subject to the directives of the monarchy, but the two communities within it had a legal differentiation based on the recognition, or cession, of rights to native peoples⁷. The creation of a republic of natives addressed the need to

⁶ In the 1540's the New Laws (1542) were enacted, with which King Charles I sought to limit the power of the conquistadors by suppressing the *encomienda*. The *encomienda* was initially conceived as a means of protecting and evangelizing natives; however, the opposite occurred and it became a means of enslaving Native Americans for the benefit of the *encomenderos*. It was not the first time the encomienda system in the Americas would be debated; earlier, with the experience of the Antilles only, the Laws of Burgos (1512-1513) had been promulgated.

⁷ In the Indies, the term republic was applied originally to each of the native peoples: Republic of Aztecs, Republic of Mayas, Republic of Tlaxcaltecas, etc. Under an integrationist policy implemented by the monarchical government, which included the displacement of native peoples, these differences tended to disappear and the use of the term *República de Indios* became widespread. In contrast, a Republic of Spaniards was also established, which was more an intellectual creation than a palpable reality. The two republics were subject to different treatment, as seen in the *Recopilación de las leyes de Indias*; however, they were on a converging path. Both republics shared the same Indian law and the same higher

protect native people and at the same time to exclude them from certain political activities⁸. To accomplish this, institutions were created or modified for the purpose of serving the population segmented in these two artificial and permeable social groups⁹, as seen in the case of hospitals.

authorities, although each had its own immediate authorities, as in the case of the *cabildos* and *cacicazgos de indios*. See Levaggi, Abelardo, «República de Indios y República de Españoles en los Reinos de Indias», Revista de estudios histórico-jurídicos, n° 23, 2001 (pp. 419-428).

⁸ Segregating indigenous people in political decision making was a strategy designed to ensure the conservation of their status and perpetuate Spanish dominion. In effect, the conquistadors permitted the survival of some indigenous legal institutions as long as they did not conflict with the rights of conquest and at the same time allowed exploitation of the colony's wealth. Salvadorini, Vittorio, «Las Relaciones de Hernán Cortés», *Thesaurus*, tomo XVIII, n° 1, 1963 (pp. 77-97), p. 90. Later, when it was decided to institute the Court of the Inquisition in New Spain, it was specified that «be warned that in use of your powers you shall not proceed against the Indians of your district, because, for the time being and unless you are ordered otherwise, it is our will that you shall use them only against older Christians and other persons against whom in these realms under the Spanish crown such proceedings are customarily instituted». Instructions cited by Moreno, Roberto, «La Inquisición para indios en la Nueva España, siglos XVI al XIX», in eds. Saranyana, Josep-Ignasi, Tineo, Primitivo, Pazos, Antón M., Lluch-Baixaulli, Miguel and Ferrer, María Pilar, *X Simposio Internacional de Teología de la Universidad de Navarra*, Universidad de Navarra Publications Service, Navarra, 1990, vol. 2 (pp. 1471-1484). Likewise, see the work of Traslosheros, Jorge E., «El tribunal eclesiástico y los indios en el Arzobispado de México, hasta 1630», *Historia Mexicana*, vol. LI, n° 3, january march 2002 (pp. 485-516).

⁹ Before the two-republics model was imposed, there were projects, like the Franciscan, which sought to assimilate the native in Western culture through evangelization and education. The case of the opening of the College of Santa Cruz de Tlatelolco, annexed to the Convent of Santiago, is a noteworthy example of this policy. Through this center, the Franciscans sought to train an indigenous elite under European paradigms, thinking that it could provide a bridge for communication between the ruling class and the governed and at the same time an effective means of exercising authority over the rest of the native population. On the College of Tlatelolco, see Borgia Steck, Francis, *El primer colegio de América, Santa Cruz de Tlatelolco*, Center for Franciscan Studies, México, 1946; Kobayashi, José María, *La educación como conquista: empresa franciscana en México*, El Colegio de México, México, 1974; and Mathes, Michael, Santa Cruz de Tlatelolco, la primera biblioteca académica de las Américas, Ministry of Foreign Affairs, México, 1982; Pardo Tomás, José, «Conversion medicine. Communication and circulation of knowledge in the Franciscan convent and college of Tlatelolco, 1527-1577», Quaderni Storici 142, año XLVIII, n° 1, april 2003 (pp. 1-21).

3. Hospital Real de San Jose de los Naturales¹⁰

The study of the hospital should be placed in the context of the society which produced it¹¹. The opening of Hospital Real de Naturales, in the years immediately following the conquest, came at a time when hospitals were undergoing various changes, as a result of the evolution which European political and economic systems had started to undergo in the Late Middle Ages, when the bourgeoisie made its appearance. Also, the creation of hospitals in the New World involved another series of factors which were unknown in the Old World, like providing assistance to an autochthonous population which had no prior knowledge of Christianity and had an entirely different way of conceiving medicine and the processes of health and illness.

Behind the creation of hospitals was a deep religious sentiment which had permeated European society since the late stages of the Roman Empire. The primitive church exhorted the faithful to provide aid to the ill and needy. To that end, it appealed to the theological virtue of caritas, in other words love of God and one's fellow man. Based on this concept, aiding the needy through disinterested action was enshrined as an ideal, thereby creating a condescending attitude toward the suffering of others. The expansion of Christendom had a direct impact on care for the infirm through charitable actions for the benefit of the poor, the ill, the incurable, and the moribund, giving rise to a form of organized aid for the entire population, which led to the creation of the hospital as an institution¹². The most important contribution of early Christianity was to redefine charitable efforts on behalf of the needy, who ceased to be seen as poor unfortunates who had to be removed from society due to the stigma of their sins, which manifested in illness. Another change which Christian thought produced was hospitality to the infirm. Hospitality was a moral duty among different peoples of the Old World, but the New Testament interpretation made it a virtue and a necessary duty for followers of Christ, whose figure was transformed into that of Christ the Healer or Christ the Infirm. The harboring and care of those who had lost their health permeated numerous religious orders

¹⁰ As mandatory reference, see the work of Zedillo Castillo, Antonio, Historia de un hospital. El Hospital Real de Naturales, Mexican Social Security Institute, México, 1984. Also, Hospital Real de Naturales has a wide range of studies: Justino Fernández, «El Hospital Real de los Indios de la Ciudad de México», Anales del Instituto de Investigaciones Estéticas, year III, tome II, n° 3, 1939 (pp. 25-47); Venegas Ramírez, Carmen, «La asistencia hospitalaria para indios en la Nueva España», Anales del Instituto Nacional de Antropología e Historia, Sixth period, tome XIX, 1966 (pp. 227-240); Venegas Ramírez, Carmen, Régimen hospitalario para indios en la Nueva España, Ministry of Public Education, National Institute of Anthropology and History, México, 1973; Campos Navarro, Roberto and Ruiz Llanos, Adriana «Adecuaciones interculturales en los hospitales para indios en la Nueva España», Gaceta Médica de México, vol. 137, n° 6, 2000 (pp. 595-608); Romero Huesca, Andrés and Ramirez-Bollas, op. cit.; Rodríguez-Sala, María Luisa, op. cit; Rodríguez, Martha Eugenia, «Un espacio para la atención del indígena. El Hospital Real de Naturales», in comp. Esquivel Estrada, Noé, Pensamiento Novohispano 7, Universidad Autónoma del Estado de México, México, 2006 (pp. 105-116).

¹¹ María Luz López Terrada insists on the need to account for the historicity of hospitals because «a present-day hospital, product of a class-based society and a capitalist economic system, is not the same as a medieval hospital, operating within a feudal society and economy», López Terrada, María Luz, «El hospital como objeto histórico: los acercamientos a la historia hospitalaria», Revista d'Història Medieval, n° 7, 1996 (pp. 192-204), p. 196.

¹² López Piñero, José María, La medicina en la historia, La Esfera de los Libros, Madrid, 2002, p. 110.

and congregations, which in time became founders of hospitals¹³. The contribution of monastic medicine with regard to medical practice per se did not consist of any scientific advance; its primary contribution lay in regulation, discipline, and ordering of care for the infirm.

By the 10th Century, monastic medicine had begun to decline. In the 12th Century, the Council of Clermont (1130) prohibited clerics and monks from practicing medicine. In the same century, however, new forms of assistance appeared through the hospital orders which emerged during the Crusades. The abandonment of medicine by the religious orders and the emergence of the bourgeoisie in the Late Middle Ages triggered a change in the social conception of the infirm. Poverty -as affirmation of the poverty of Christgradually ceased to be an ethical ideal, which brought substantial changes in the measures taken to combat it. Lopez Terrada affirms that we need to bear in mind that, in the 15th Century a process began in which the medieval hospital was divided in two institutions with distinct features: the hospital, intended for the infirm, and the poorhouse for the destitute. Both problems were closely related because they were public matters which had to be addressed by urban authorities, given that the state was still in an incipient process of formation¹⁴. The conceptual shift in views of poverty and charitable action has been linked to major socioeconomic changes, demographic growth, pauperism, and the rise of capitalism. During the Renaissance, poverty began to be seen as a form of social control from a political perspective¹⁵, giving rise to distinctions in the care available to different levels of society: the powerful nobles, who had their own medical service (bedside physicians); the emerging bourgeoisie, which had access to visiting medical care; and the poor, whose options were popular, or traditional medicine¹⁶ and the hospital. It was in this period of transition which hospitals were going through in Europe that they made their appearance in the New World.

It is hardly strange that hospitals were among the first establishments to appear in New Spain. Hospital de Naturales, apparently, was the third to open in the viceroyal capital¹⁷. Today there is no document which confirms the exact date of its founding, but it can be estimated at around 1529 on the initiative of Franciscan Friar Pedro de Gante, who was distinguished by his dedication to assisting natives at the dawn of the colonial age. The author of the fullest monograph in existence on Hospital de San Jose, Antonio Zedillo

¹³ Schubert, Charlotte, «Grecia y la medicina europea», in VV. AA., Crónica de la medicina, Tomo I. Prehistoria-1599, Plaza & Janes, Barcelona, 1993, p. 62.

¹⁴ López Terrada, María Luz, op. cit., p. 193.

¹⁵ The observations of Pablo Pérez García in analyzing the concepts of poverty of some of the most influential personalities of the Renaissance are interesting. For example, in Machiavelli he cites the «collective poverty» of citizens, which was the guarantee of an integrating social order. On Thomas Moore, he writes that in his *Utopia* there is a new concept of poverty, since «Utopians are rich because they are poor, because they work, share, trade, and attend to the defense of their country and just causes». On the other hand, in the reflections of Luis Vives he detects the principle of «collective poverty», in which the duties of charity and public assistance are protected by the public powers. Pérez García, Pablo, «La 'sociedad insuficiente'; pobreza y cambio social (SS. XV-XVII)», Revista d'Història Medieval, n° 7, 1996 (pp. 205-211), pp. 209-210.

¹⁶ Reference is made to other medical systems which combined different healing practices outside the galenic system prevalent in the era which, from the perspective of humoral medicine, were permeated with a mixture of paganism, occultism, and magical practices.

¹⁷ In a «Listing of hospitals operating in the city and archbishopric of Mexico», Pedro Moya de Contreras enumerated six: De la Purisima or de Jesus, San Lázaro, de Indios, Amor de Dios or de Bubas, San Hipólito or Convalecientes, and Desamparados. Cuevas, Mariano, Documentos inéditos del siglo XVI para la historia de México, Porrúa, México, 1975, pp. 325-328.

Castillo, reports that the Andalusian friar, on seeing the deplorable conditions in which the indigenous population lived after the conquest, decided to establish a modest infirmary to one side of the Franciscan convent in Mexico City. The documentary proof Zedillo Castillo presents is a local government order dated July 12, 1529. That day, the authorities confirmed the donation of a plot of land to the convent of Saint Francis to build a hospital at which natives who were interned in the monastery received care¹⁸.

On May 18, 1553, a decree was issued granting the hospital royal status. This document ordered the construction of a building to house the hospital facilities and al allocation of two thousand pesos in gold from the royal treasury for the work and four hundred pesos a year for its upkeep. The document also ordered that bylaws be drafted for the hospital, which did not occur until the 18th Century, with their publication in 1778. In September 1556, another two thousand ducats were provided to complete the building 19. The hospital was built on the same site where the infirmary created by Pedro de Gante already operated, on the opposite side of the canal running past the convent of Saint Francis. It was so large that the hospital came to have more than two hundred beds. In this regard, Francisco Cervantes de Salazar left testimony of the existence of that primitive structure: «Opposite there is a hospital with very fine tents which the Indians have made for rental, where poor and infirm Indians are healed»²⁰.

The reasons for building a hospital devoted to caring for indigenous people have been examined by various students of the subject²¹. They all concur on identifying two main reasons: medical care for indigenous people and their evangelization. As is well known, the diseases introduced by the conquistadors, against which the indigenous population lacked the proper immune response, triggered a series of epidemics with extremely high mortality among natives²². The first great smallpox epidemic in Mexico City took place in 1520, during the War of Conquest. Coinciding with the opening of Hospital Real de Naturales there was another measles epidemic (1531-1532). Motolinia remarked on these phenomena that «many died in the conquest of this New Spain, especially in Mexico», and also added that «the third plague was a massive famine when Mexico City was taken, during which time the great wars prevented them from raising

²⁰ Cervantes de Salazar, Francisco, *México en 1554 y Túmulo imperial*, editing, prologue, and notes by Edmundo O'Gorman, Editorial Porrua, Colection «Sepan Cuantos... 25», México, 1982, p. 170. A description written after the *Diálogos* (*México en 1554*) of Cervantes de Salazar, appearing in his *Crónica de Nueva España*, written between 1557 and 1564. Consequently, the Hospital de Indios building appears, since it had received financial support from the crown in 1556 to finish the work.

²¹ Hospital Real de los Naturales in Mexico City was not the only hospital of the era opened to serve the native population. Contemporaries include the hospitals of Vasco de Quiroga de Santa Fe, on the outskirts of Mexico City, and Santa Fe de la Laguna in Michoacán. As bishop of Michoacán, Vasco de Quiroga supported the opening of several hospitals for natives in the territories under his jurisdiction. We also know of the opening of hospitals for natives in Oaxaca, Chiapas, Yucatan, and Morelos. Venegas Ramírez, Carmen, Régimen hospitalario... op. cit.

¹⁸ Because news of the early years of Hospital de Indios are vague and at times contradictory, Zedillo Castillo carefully examines all the assumptions made by authors like Agustin de Vetancur, Fabián de Fonseca, Carlos Urrutia, Cayetano Cabrera, Jose María de la Fuente, Justino Fernández y Josefina Muriel, and María del Carmen Venegas, among others, finally «proposing July 12, 1529, as the date of founding of Hospital Real de Naturales». Zedillo Castillo, Antonio, *op. cit.*, p. 28. *Cfr.* Mexico City Historical Archive (Spanish acronym AHCM), *Actas de Cabildo*, July 12, 1529.

¹⁹ Fernández, Justino, op. cit., p. 27.

²² See the work of Malvido, Elsa, «Las epidemias en Nueva España en el siglo XVI. Una nueva patología», in coord. Peset, José Luis, La ciencia moderna y el conocimiento del mundo: actas de la I Reunión de Historia de la Ciencia y de la Técnica de los Países Ibéricos e Iberoamericano (Madrid, 25 a 28 de septiembre de 1984), Consejo Superior de Investigaciones Científicas, Madrid, 1984, pp. 367-379.

crops»; finally, he noted that the natives perished due to the «vast tributes and services levied upon the Indians»²³.

Decades later, in a listing of hospitals in Mexico City presented to the King, Archbishop Pedro Moya de Contreras reported on Hospital de Indios:

The Royal Hospital [...] has been founded in this city, under the name of Saint Joseph, and is devoted to curing all inform Indians who seek care there from all parts of this New Spain. It is administered under orders of the Viceroy by an honorable and distinguished citizen who is charged with visiting it and ensuring that His Majesty's will is fulfilled in all matters, and has control over the revenue said hospital receives from endowments which His Majesty has granted and charitable contributions which are solicited. And as the Indians of New Spain have seen their population so diminished, the same has occurred among those who seek care at the said hospital...²⁴

In the writings of Motolinia and Archbishop Moya de Contreras, we can discern a certain concern for the health of the indigenous peoples, who were prey to exploitation under the *encomienda* system and constant epidemics which plagued the viceroyalty. In a society in the process of evangelization, saving souls was one of the highest religious ideals, for which purpose spiritual services were deemed essential. Thus, hospitals for natives in New Spain became a key component in the process of evangelization and in preserving the health of the natives. Therefore, the hospital sought to preserve the indigenous workforce.

Since 1541, Emperor Carlos V had ordered that hospitals be founded in all the newly conquered territories²⁵. By then, several hospitals devoted to providing care for the indigenous population of New Spain were already operating. In the 1530's, Vasco de Quiroga founded the hospitals of Santa Fe and Santa Fe de la Laguna and in 1538 wrote *Reglas y ordenanzas* (*Rules and ordinances*) to govern them²⁶. Contemporaneously with these ordinances, hospital rules were also drafted by the Franciscan Alonso de Molina²⁷. Here, it should be noted that we reference these two sets of rules for hospitals for natives because they are the only two known normative bodies for such foundations in the 16th Century. Both were designed to oversee the hospitals' internal affairs. Thus, we can see that the functions of those establishments included teaching Christian doctrine; providing training in different trades such as carpentry, ironwork, and masonry; and raising crops. For their part, women were taught the «female trades»²⁸. The aim of indoctrination of

²³ Cited by Sempat Assadourian, Carlos, «La despoblación indígena en Perú y Nueva España durante el siglo XVI y la formación de la economía colonial», *Historia Mexicana*, vol. XXXVIII, n° 3, 1989 (pp. 419-453), pp. 420-421.

²⁴ Cuevas, Mariano, op. cit., pp. 106-107.

²⁵ Fernández, Justino, op. cit.

²⁶ Available for consultation on the website of Universidad Nacional Autónoma de México, Institute of Legal Research: https://archivos.juridicas.unam.mx/www/bjv/libros/2/638/13.pdf Consulted December 11, 2021.

²⁷ These ordinances, as noted by Josefina Muriel, are available on microfiche at the Chapultepec Castle Documentation Center. The text is in Nahuatl, indicating that service in hospitals for natives was to be performed by natives themselves. Muriel, Josefina, *op. cit.*, pp. 84-85.

²⁸ Women were taught the crafts of wool and linen and silk and cotton and all else deemed necessary as accessory to and useful for the work of the loom, and to sow and raise crops for their homes and families.

natives who lived in the hospitals, in the humanistic thought of Quiroga and the Franciscan philosophy of Alonso de Molina, was an alternative to the *encomienda* model.

Like the primitive church, the first church in the Americas saw an opportunity to practice Christian charity among the natives and win over numerous believers to the Catholic faith. The Franciscans, first of the mendicant orders to come to New Spain, believed in the possibility of creating a replica of the twelve apostles in the Americas, untainted by European corruption; thus, they would erect «a new Church, where, more than in all others in the world, Our Lord God shall be served and honored»²⁹. In this sense, hospitals in New Spain should be seen as sacred spaces where the infirm received primarily spiritual care. Many afflicted natives whom they attended did not leave their premises alive. In fact, it was common for poor people to live out their final days in one of these institutions, more in search of spiritual succor than bodily healing. Hospitals for natives embodied the ideal of primitive Christianity in which poverty and illness were an expression of holiness. However, the reality clashed with the intentions of the evangelists, as Geronimo de Mendieta explains: «we neither could nor can compel the Indians to come into a hospital to be healed, aside from someone so poor they have no one to look after them. The others would rather die in their homes than be nursed back to health in a hospital»³⁰.

4. Medical practice and fusion of medical traditions at Hospital Real de Indios

Medical care for natives was relegated to a secondary, but no less important, level. Through medicine, a cultural bond was formed between Spaniards and natives. The combination of sanitary practices the two groups brought to the institution created new therapeutic techniques suited to the social and cultural reality of the viceroyalty. The mid-16th Century saw a notable process of mestizaje of medicine in New Spain, with its exercise and practice under the oversight of the colonial authorities. Only in the hospital therapeutic practices of pre-Hispanic origin be regulated, since the intention was to strip them of all their previous ritual content and thus adapt them to the mentality and custom of the conqueror. Thus, colonial institutional medicine incorporated indigenous therapeutic knowledge, but submitted it to the parameters of galenic medicine. In the process of cultural mixing in medicine, a transcultural dialog unfolded between the traditional knowledge of indigenous peoples and the theories of galenic medicine, in which the former was considered less developed than the latter. Although there are few references documenting medical practice at Hospital de Naturales in the 16th Century, there are some which may help give us an idea of how the process of convergence of millenarian traditions developed.

One source which gives an account of cultural exchange in the realm of medical knowledge at Hospital Real de Naturales is the work of Public Health Officer Francisco Hernandez, who, at the time, performed a royal commission to «write a history of the native things of our possessions in the Indies»³¹. Hernandez's role as a medical practitioner in New Spain marked a turning point in the natural history of the New World. Hernandez came to Mexico City in 1571 with solid humanistic background: he held a degree in medicine from the University of Alcala, had acquired substantial experience in the fields of botany and anatomy at Hospital de Guadalupe in Extremadura, and was a physician to the royal household, where he met and formed a friendship with Andres Vesalio. Hernandez had orders from King Phillip II to:

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²⁹ Cited by Elliot, John H., España y su mundo (1500-1700), Taurus, Madrid, 2007, p. 65.

³⁰ Mendieta, Gerónimo de, Historia eclesiástica indiana, publ. García Icazbalceta, Joaquín, Antigua Librería, México, 1870, p. 307.

³¹ National Historical Archive (Spanish acronym AHN), Diversos-Colecciones, n° 7, f. 1.

Report, wherever you go, on all physicians, surgeons, herbalists, and Indians and other persons who take an interest in such practices who you believe may understand and know anything, and make a general catalog of all medicinal herbs, trees, and plants there may be in the provinces you visit⁸².

In 1572, Hernandez began his travels through various parts of the viceroyalty accompanied by a group of assistants. Availing himself of the network of convents and hospitals which Franciscans, Dominicans, and Augustinians had established throughout the territory of New Spain, Hernandez came into contact with natives and members of religious orders who already practiced a mixed form of medicine, combining Mesoamerican ancestral knowledge and galenic practice to treat disease. The combination of knowledge from different medical systems produced a therapeutic approach which can be properly called New Spanish and which included the use of medicinal plants from various regions of the viceroyalty. In 1574, Hernandez returned to Mexico City and took up residence at Hospital Real de Naturales. His stay there extended up to his return to the Peninsula in 1577. In the nearly three years he worked at Hospital de San Jose, Hernandez systematized all the information he had gathered on his expeditions, started writing his work on natural history, worked with various doctors and surgeons during the great epidemic of 1576, and experimented -even on himself- with the effects of some medicinal plants. Hernandez chose Hospital Real de Naturales as his residence in the city because the institution offered many advantages and facilities for his work as a naturalist. There he could plant a garden to sow and cultivate the plants he had gathered on his travels. Likewise, he had space to keep the animals he had collected and, above all, could better experiment with the indigenous remedies and medicines he had brought with him from his journeys.

Hernandez's primary occupation at Hospital de Indios consisted, then, of investigating the usefulness of Mexican medicinal plants within galenic medicine. For example, of *coanenepilli* or serpent tongue, he wrote³³:

The root is fibrous, the flowers yellow, and it has tendrils like the others. It is of temperate or slightly warm nature. It helps release retained semen, stimulates the appetite, and taken in doses of two drachmas helps in the moderate expulsion of bile and phlegmatic humors through the lower conduit. It grows in warm and rural places like Yacapichtla, Hoaxtepec, and Zayula. I found another variety of this plant with heart-shaped leaves, of which we shall speak separately, and also another similar to the first and imbued with the same properties, but with much more slender leaves³⁴.

This description by Hernandez clearly reflects the appropriation of a Mexican plant by galenic medicine. The description of *coanenepilli* as a plant of «temperate or slightly warm» nature was made from the perspective of gaenic medicine, in which bodies, and matter in general, had qualities derived from the four primary elements of the universe:

³² Idem.

³³ Coanenepilli (Serpent tongue) (Passiflora incarnata). From Coanenepilli tricuspide or mazacoanenepilli, meaning coanenepilli of stag or cihoacoanenepilli.

³⁴ Hernández, Francisco, *Obras completas. Tomo II. Historia Natural de la Nueva España.* On line http://www.franciscohernandez.unam.mx/tomos/o2_TOMO/tomooo2_004/tomooo2_004_100.html Consulted December 11, 2021.

fire, earth, air, and water³⁵. Also, the use of this plant and others began to be defined in Western terms, determining that its use helped to «evacuate some phlegmatic humors». The *coanenepilli* root was recommended by Hernandez as part of the treatment of patients in the *cocoliztli* epidemic of 1576. The treatment he prescribed for this disease is a clear example of the amalgamation of remedies from the galenic and indigenous medical systems:

Use disobstructing ointments applied around the abdomen and drink juice of boiled barley, the bark of celery roots, coanenepilli root, and fennel seed, and from time to time also use cocotlacotl, chipacoac, and atochotel [...] Some use atochietl boiled from a sprig or root of the plant called quauhayoachtli, which plants we discuss in our [cited] history and others employed crushed garlic cloves, with what they call atole, and we cannot fail to mention those who to the great detriment of their patients- washed their bodies with cold water and sprayed their foreheads with juice of boiled coactli, also giving them drafts of iztapactli juice³⁶.

Barley, celery, fennel, and garlic are plants introduced by the Spaniards, which were mixed in colonial prescriptions with *coanenepilli*, *cocotlacotl*, *chipacoac*, *atochetl*, *coactli*, and *iztapactli*, creating a new therapy to treat the indigenous population, suffering from various diseases imported from Europe.

Similarly, in Hernandez's work we can trace the syncretic process of some medicinal plants taking other earlier medical writings as reference. An example of that is the use of *Acxoyatl*, the earliest description of which is found in *Libellus de medicinalibus indorum herbis* (Booklet of medicinal herbs of the Indies) or *De la Cruz-Badiano Codex*³⁷, which states that the plant is used to cure «those who have been injured by tornado or hurricane» and was applied for «those who have suffered the consequences of a hurricane». For healing, Martin de la Cruz recommended drinking «the healthy juice made from the herb *cuauhyayahual, acxoyatl*, and ground sprigs of pine and laurel in water [...] because that

³⁵ The correspondences of the four elements of the universe with the four humors and their qualities were: fire/yellow bile (warm and dry), earth/black bile (dry and cold), air/blood (hot and wet) and water/phlegm (cold and wet).

³⁶ Hernández, Francisco *Obras completas. Tomo VI. Escritos varios*, Universidad Nacional Autónoma de México, México, 1984, p. 482.

³⁷ Precisely, one of the most emblematic examples of the process of acculturation of medicine in New Spain is the *Libellus de medicinalibus Indorum herbis* (1552), written at the Colegio de Tlatelolco, where, possibly for the first time, there was systematic communication and circulation of indigenous and Spanish medical knowledge. This codex, better known as the De la Cruz-Badiano Codex, has been considered by several authors the earliest mestizo text on Mexican medicine. Written by *ticitl* Martín de la Cruz in his native language, Nahuatl, and translated into Latin by the Xochimilca noble Juan Badiano, the *Libellus* is a short but rich antidotary containing remedies of animal, mineral, and plant origin which were used in indigenous medicine to treat various illnesses and were unquestionably practiced at the college of the Convent at Tlatelolco. On the De la Cruz-Badiano Codex, see the works of Viesca, Carlos «Martín de la Cruz, autor del códice de la Cruz-Badiano, era un médico tlatelolca de carne y hueso», *Estudios de Cultura Náhuatl*, n° 25, 1995 (pp. 479-498); and Viesca, Carlos, «El Códice de la Cruz-Badiano, primer ejemplo de una medicina mestiza», in eds. Fresquet Febrer, José Luis and López Piñero, José María, *El mestizaje y la medicina novohispana del siglo XVI*, Instituto de Estudios Documentales e Históricos sobre la Ciencia, Universitat de Valencia, Valencia, 1994 (pp. 71-88).

beverage will expel the foul air which penetrates the interior»³⁸. In the Nahua tradition there were diseases caused by *Quetzalcoatl* in his embodiment as *Ehecatl*, god of the wind. *Ehecatl* had a legion of assistants called the *ehecame*, entities which abounded in nature causing ills of cold nature among men traveled the roads by night or in storms. On the other hand, in Hernandez's work, *Acxoyatl* has passed through a cultural filter which has stripped it of its prior meaning, and is described by the Toledan physician as: «A tall tree with thick foliage, identical or related to the fir three in our land, which produces not only a sap like our *abetina*, but also an oil from blisters s on the trunk, highly effective in easing pain, expelling cold, and cleansing and purifying the great conduits of the body, taken in half-ounce doses…»³⁹. In other words, airs, as similes of the *ehecame*, ever present in the mind of Martin de la Cruz, were left out of the explanation given by Hernandez, who saw in *Axoyatl* a remedy for a cold ailment, based on the humoral qualities dictated by galenic medicine. The *ehecame*, however, continue to feature in Mexican traditional medicine under the denomination of airs (*aires*).

Another fundamental reference to understand the process of merging of 16th Century New Spanish medicine at Hospital Real de Naturales is the work of Alonso Lopez de Hinojosos Summa y recopilación de cirugía con un arte para sangrar muy útil y provechosa which came off the presses of Antonio Ricardo in the year 1578⁴⁰. Lopez de Hinojosos served as steward at Hospital Real de Naturales for almost fourteen years. 41 His experience as administrator of Hospital de San Jose gave Lopez de Hinojosos the opportunity to learn first-hand about the use of different medicinal elements of pre-Hispanic origin. It is well known that hospitals for natives were frequented by indigenous healers who knew how to prepare and use the various medicinal plants. Carmen Venegas reports that the Ordenanzas para el gobierno de los hospitales by Alonso de Molina, which are written en Nahuatl, advised brother's working in hospitals that they had to be able to distinguish between real medicine and that practiced by «deceivers, demons, sorcerers, false physicians», in clear reference to the supposedly superstitious and magical practices conducted by indigenous healers. Likewise, Molina stated that it was the «duty of the brothers who first take counsel to seek out the diverse medicines, the medicinal herbs», and warned that it would constitute a grave sin to "bring sorcerers into hospital; they shall bring true men of knowledge, those who know the medicinal herbs with which they shall cure [patients]»42.

Alonso Lopez de Hinojosos arrived in New Spain in 1564. He is known to have worked at Hospital de Jesus and later at Hospital Real de Naturales, where he held the position of steward for fourteen years. In the pages of the *Summa*, he not also discussed his extensive work as a surgeon and anatomist⁴³, he also elaborated on the intense exchange

³⁸ Cruz, Martín de la, Libellus de medicinalibus indorum herbis. Manuscrito azteca de 1552 según traducción latina de Juan Badiano, Spanish version with studies and annotations by various authors, Instituto Mexicano del Seguro Social, México, 1964, p. 211.

³⁹ Hernández, Francisco Obras completas. Tomo II..., op. cit.

⁴⁰ López de Hinojosos, Alonso, Summa y recopilación de cirugía con un arte para sangrar muy útil y provechosa, publ. Ricardo, Antonio, México, 1578.

⁴¹ On López de Hinojosos, see the works of Somolinos D'Ardois, Germán, «Vida y obra de Alonso López de Hinojosos», in López de Hinojosos, Alonso, Suma y recopilación de cirugía con un arte para sangrar muy útil y provechosa, Academia Nacional de Medicina, México, 1977 (pp. 1-65); Rodríguez-Sala, María Luisa, op. cit., pp. 93-96; and Martínez Hernández, Gerardo «La llegada del cirujano Alonso López de Hinojosos a la Nueva España», Revista Médica del Instituto Mexicano del Seguro Social, vol. 49, n° 4, 2011 (pp. 459-463).

⁴² Venegas Ramírez, Carmen, Régimen hospitalario..., op. cit., p. 116.

⁴³ López de Hinojosos conducted an extensive series of *post-mortem* examinations at the hospital before, during, and after the 1576 epidemic: «And this I have seen many times in autopsies I have performed with

of medical knowledge which took place within Hospital de los Naturales. Like Hernandez, in treating victims of the 1576 epidemic, Lopez de Hinojosos recurred to a therapy based on a combination of indigenous remedies screened through galenic theory. For example, natives who fell ill in the 1576 epidemic were given:

A one-real weight of atriaca and another equal portion of quanenepile, dissolved in water of an herb found near Nuestra Señora de los Remedios [...] called qualtlacalhuas [...] and with that they would sweat an hour, and then at night they would be purged [...] And the next day, after the purge, they were given atriaca with quanenepile, and every day before dawn they were given a glass of water unheated, with just the root soaked in the water⁴⁴.

Here, our attention is drawn to the use of several herbs native to Mesoamerica combined with the preparation *atriaca*. *Triaca*, or *theriaca*, was a pharmaceutical compound containing, at times, more than seventy ingredients of animal, plant, and mineral origin. It was invented in antiquity, approximately in the second century A.D., and became popular in the Middle Ages. Its use spread until well into the 20th Century. Initially, it was created as an antidote to animal venom and it was eventually seen as a cure for all kinds of ailments. In New Spain, its use was widespread, since its golden age came between the 16th and 17th Centuries⁴⁵.

In 1595 the second edition of *Summa y recopilación de cirugía* came off the presses of Pedro Balli⁴⁶. In this second printing, Lopez de Hinojosos included an *Antidotario* at the end, listing a wide variety of medicines prepared from both European and American plants.

Alfredo Lopez Austin observes, insightfully, that our view of pre-Hispanic medicine is flat and intemporal, given that available reports on it date from the years after the conquest. This, naturally, prevents us from conclusively knowing the antecedents, exchanges, and influences which the various cultures which populated Mesoamerica had in the field. To this we should also add what Jose Pardo Tomas has reaffirmed several times: we must reject a reductionist, limited view which defines the European and indigenous medical systems as unique and closed, since we must account for the multiplicity of medical practices in Mesoamerica and the experience which monks, conquistadors, and colonists had acquired in Spain which deviated from the theoretical and stable model of academic medicine.

The relationship which evolved between Spanish clerics and physicians and natives in hospitals created for the latter led to an attempt at assimilation of indigenous knowledge under Western parameters. Spanish doctors sought to extract the «usefulness» from indigenous medical treatments while stripping them of their cultural content, which did not align with the practices of Christianity. Other times, they merely tried to shoehorn them into Christian traditions. Similarly, galenic medicine took the parts of indigenous medicine

my own hands at Hospital Real de Indios in this city, which is in my charge». López de Hinojosos, Suma y recopilación..., op. cit., p. 147.

⁴⁴ *Ibidem*, p. 211.

⁴⁵ On triaca, see La Triaca Magna. Discurso del Excmo. Sr. D. Javier Puerto Sarmiento. Leído en la sesión del día 26 de febrero de 2009 para su ingreso como académico número. Y contestación del Excmo. Sr. D. Antonio Doadrio Villarejo, Instituto de España Real Academia Nacional de Farmacia, Madrid, 2009.

⁴⁶ López de Hinojosos, Alonso, Summa y recopilación de cirugía, con un arte para sangrar, y examen de barberos, compuesto por maestre Alonso López de Hinojoso[s]. Va añadido en esta segunda impresión el origen y nascimiento de las reumas, y las enfermedades que dellas proceden, con otras cosas muy provechosas para acudir al remedio dellas, y de otras muchas enfermedades, publ. Balli, Pedro, México, 1595.

which served it, superimposing the qualities dictated by the humoral system on them. This produced a mixture from which it is impossible to extract purely European or indigenous elements.

5. Conclusions

The establishment of Western-style institutions in a society divided in two republics, of Spaniards and Natives, marked the starting point of New Spain's political, religious, and social organization. Spaniards' prior experience in mattes of religious coexistence was not sufficient to handle the challenges posed by the New World. For centuries, Catholic Spaniards had lived alongside Jews and Muslims, whom they first expelled and then tried to convert by means of punishments, to finally banish them. In contrast, in the Americas they found a population with which they had had no prior contact and which, as a result, had no knowledge of Christianity. Conquistadors and evangelists had to improvise new forms of governance and evangelization. Thus, institutions began to be organized which had a long history in the West; however, when they were transplanted into a new environment, they were modified.

The first model of social and religious organization was the *encomienda*, which rapidly began to be undermined by monarchical power, since it constituted a form of rule which diminished the power of the crown in favor of the *encomenderos*. Consequently, the solution was to institute organizations more subordinated to the dictates of the metropolis. This approach led to the formation of institutions under royal patronage, like Hospital Real de San Jose de los Naturales, which offered spiritual, sanitary, and social services to natives and at the same time represented a «civilizing» alternative to the *encomienda* and the forced settlements known as *reducciones de indios*.

The hospital was a long-standing Western institution which had been through several historical stages before being implanted in newly-conquered American territories. Just when a new continent appeared on the horizon, this institution was in the midst of a transformation which would reshape it in accordance with the political and economic forms the bourgeoisie was imposing in different parts of Europe. However, the situation was completely different on the other side of the Atlantic Ocean. The appearance of large groups of people with no knowledge of Christianity was reason to wage wat and evangelize the American natives. Once native populations had been subjugated through warfare, the ecclesiastic and civilian authorities employed old institutional models, adapting them to the needs of the New World. As a result, hospitals devoted to the indigenous population of New Spain resembled the earliest hospitals founded in the era of primitive Christianity, being tasked with attending to populations decimated by war, the plague, and a new system of exploitation, in addition to imparting Christian doctrine.

A side effect of implementing the hospital as a center for evangelization was the process of acculturation of medical knowledge from the two cultures involved. Throughout the viceroyalty, in both convents and hospitals, an amalgamation was forged between classic Western medical knowledge, brought by missionaries, and knowledge of the use of medicinal plants provided by the *titici*, or indigenous healers. The negotiation between the traditions was unquestionably tense, but it could unfold only in the hospital ~or the convent~ because it was a place where academic medicine did not have complete control over medical knowledge and practice. As Jose Pardo Tomas has observed, hospitals in New Spain were spaces where the circulation of medical knowledge and practice was immersed in conditions created by diverse interactions. Hospitals were instruments of conversion and provided the context for power relations which in turn were imprinted on medical

practice⁴⁷. Also, the scant presence of galenist physicians in mid-16th Century New Spain suggests that the decades following the conquest saw a rapid expansion of the use of a mestiza medicine, since, as Serge Gruzinski remarks, in New Spain «the Western legacy and the Amerindian legacy vary, coexist, and interact. Fragments of one combine with fragments of the other to form diverse and mobile configurations»⁴⁸.

For the particular case of Hospital de Naturales, at present we lack institutional documentation which would evidence the involvement of early physicians, both Spanish and Native, on its premises. The only references found are scant medical and religious texts and documents from the period. These mention Francisco Hernandez, the medical officer, who made intensive efforts to investigate indigenous medicinal remedies. Also, surgeon Alonso Lopez de Hinojosos performed considerable work in the hospital, not only as a surgeon, but as steward. Both men's positions gave them in-depth knowledge of the hospital's organization and indigenous medicine, as reflected in the pages of their respective works.

The practices discussed in this article, of evangelization and of use and amalgamation of medicine, would appear unrelated from a contemporary perspective. However, in the historical context, they were parts of the same process: the holistic healing of body and soul. In the Hippocratic-galenic medical tradition, the soul, despite its transcendent nature, was dependent on the animated matter (body) it inhabited and the body, in turn, was molded by different influences which determined the physical and moral condition of people and civilizations. In the galenic tradition, the brain was the seat of reason. Thus, being housed in a primary organ of the human body, the soul depended on ephemeral organic matter. Also, scholastic medicine was based on medieval Aristotelianism, which posited the hierarchical ordering of everything, the universe and society. This Aristotelian hierarchical scheme justified the supposed superiority of the European over the Native American, and by extension the subjugation of the latter. Hospital Real de Naturales, consequently, was an institution ruled by a twofold imposition: that of Spaniards over Natives and that of galenic knowledge over indigenous empirical knowledge.

At Hospital de Naturales, a medicine was created with European underpinnings and appropriations of indigenous knowledge which, as the product of a colonial system, was also suited for consumption by the other inhabitants of the viceroyalty. In other words, in 16th Century New Spain a medical practice developed which was neither European nor indigenous, but rather a combination of the two, which, we can affirm, was a medicine unique to New Spain.

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