HERNANDO DE TORRES KEY FIGURE IN THE FOUNDATION OF THE FIRST OFFICIAL PHARMACY OF AMERICA: APPROACH TO HIS WORK IN PUERTO RICO THROUGH A 1512 INVENTORY.

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Background

Even when more than 10 boticarios (apothecaries) came to America before 1512, more specifically to the Dominican Republic there is no evidence that they were able to establish a Botica (pharmacy). In the other hand, the Dominican Republic is recognized as the definite scenario of the first Hospital of America and most probably had an “un official pharmacy”\(^1\).

According to a Royal Spanish Order referred in the works of Las Casas and other writings, every new Spanish settlement established in the American Colonies had to be provided as soon as possible with a hospital, a physician and an apothecary in order that the old and the sick, whether they were Spanish or Indians, could be duly taken care of. Hence, the establishment of new pueblos (towns), by the Spaniards made the import of boticarios from Spain a necessity\(^2\).

It was no surprise then that the highest government official in Puerto Rico\(^3\) at the time, Don Juan Cerón, requested to the King of Spain the presence of a boticario. The Real Cédula that declared the appointment of these emerging professional, also established the appointment of a físico (physician) for the Island. At the same time it was ordered that 100 indians be assigned to these emerging professional with specific duties within the health care needs.

These is how the activities related to drug dispensing in Puerto Rico through an official “botica” (pharmacy) started just 20 years after the arrival of Christopher Columbus to the New World.

Located at the north east of the Caribbean Sea, Puerto Rico was key to the Spanish Empire since the early years of the Conquest and colonization of the New World. The smallest of the larger Antilles, it was a major military post during many wars between Spain and other European powers for control of the Region\(^4\).

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3 Puerto Rico was the most important military defense of Spain in the XVI Century.

Previous research have identified Hernando de Torres, from Spain as the boticario who came to Puerto Rico in 1512, to take charge of what became the first official pharmacy of America. Of interest is the fact that one of the authors of these paper, who is an American with Spanish ancestors, identified in 2001, a transcribed inventory that will help to have a better understanding of the state of the art of pharmacy in the first third of the XVI century as well as some of the qualifications of the adventurous young Hernando de Torres, who still is an anonymous figure in the American and European Pharmacy Historiography.

In essence, two types of apothecaries used to emigrate to the New World at the time: the ones that wanted to practice their trade and others for commercial reasons.

**Introduction**

With this exciting background linking Puerto Rico and Spain, just last year the authors of these paper decided to approach the figure of Hernando de Torres and the inventory he managed in 1512 to deepen in his duties as an “official apothecary”. Among other reasons the closeness to the celebration of the 500 years of arrival of Hernando to the Island.

The main objectives of the research were:

1. Examine the qualifications of Hernando de Torres from Seville as the pioneer of institutional pharmacy in XVI Century America.
2. Analyze the diverse drug inventories brought to Puerto Rico, with emphasis in the one brought by Hernando de Torres.

**Material and Methods**

On examination of the pharmacy related documentation in Archives and Libraries in Spain and Puerto Rico from the colonial period, it is observed that boticarios played a significant role in the institutionalization of pharmacy services in America, specifically in Puerto Rico. These was possible with rules and regulations from Spain as well as being able to establish a place in which the formulation, storage and sale of remedies intended to cure disease took place. Some of the documents that have resisted the test of time and that are a snapshot of the situation of pharmacy along with the characters involved are the inventories of medicines. We have found one for the XVI century (1512), three in the XVIII (1766, 1768, 1779 and 1788) and one in the XIX century (1807).

Of much interest was the inventory of medicines of 1512, for several reasons.

1. Was directly brought to Puerto Rico by a boticario from Seville, a city at the time that was considered an important center of trade, the included drugs.
2. Until 2001, no pharmacy literature in Puerto Rico addressed the fact the medicines from external sources were brought to the Island so early in the colonial period.
3. Open new avenues of information and knowledge about the foundations of pharmacy in the Island that related so directly with Seville.
Results

These examinations lead us to establish in first place a professional profile of Hernando de Torres that shows us not only his level of knowledge but his duties as an apothecary, something not known in the America of 1512.

He had to be literate, able to read and write Latin, and have an intimate knowledge of the medicinal properties of several hundred plants, many animals, and a number of minerals.

In addition to this theoretical knowledge, Hernando most probably knew the works of contemporary pharmacists, the European cannon of herbals and medical texts, an later, publications on chemistry and botany. His practical education came from on the job training through a four year apprenticeship with a professional boticario, serving customers, ordering medicines, preparing and filling prescriptions and learning how to manage the account books.5

Most probably Hernando de Torres was a dedicated follower of the Hippocratic tradition. As such his understanding of disease and its causes could have been explained according to the humoral theory, and dispensed medicines aimed at purging excessive humors. Probably a reference for Hernando was the *Concordia Apothecarium Barchinonensium (1511)*, considered the second pharmacopeia of the world6.

Under these premise, our Hernando de Torres was a very well educated young man according to the requirements of the time and came to America to practice his trade, and not for commercial reasons.

Of interest is that Hernando’s native Seville, was an important exit port to America and also the home of cartographers that were knowledgeable.

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He should have heard about stories of success and opportunity, since pharmacies in Spain were important gathering places at the time. By the time Hernando came to Puerto Rico, Christopher Columbus had made for voyages of exploration to the New World\(^7\), so is no surprise that much information concerning the life and resources overseas was available.

The inventory directly handled by Hernando de Torres in Puerto Rico contain more than 90 articles\(^8\) that included materials to built furnishings for the *botica*, implements, books and different types of substances in diverse dosage forms, pharmacy implements, books and materials to built furnishings for the *botica*. With Hernando also came an assistant.

With these list of substances were ingredients to elaborate de medicines such as: benedita-electuary or preparation of several powders for laxatives and stomatic herbs and roots mixed with foamed honey. Complex drugs with a long tradition of use in Europe, like Theriaca, was also included.

Overall, these drugs came from vegetable origins such as flaxseed, rose\(^9\) including others too difficult to translate in english and for various uses according to the concept of disease of the beginnings of the XVI century and the needs of the Spaniards established in the island. Other drugs were from mineral origin such as sulfur, aluminum, among others.

Also diverse dosage forms were part of the valuable cargo: Syrups. Ointments, Pills, Waters, Oils and Juices.

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\(^9\) Although the art of pharmacy required a great deal of practical knowledge and expertise, it was carried out with relatively common equipment and simple instruments. Paula Susan de Vos. *The Art of Pharmacy in Seventeenth and Eighteenth century Mexico...* Op. Cit, p.129.
65 redomas de vidrio a 5 g. = 3 pt., 3 t.; 20 boteñillos de vidrio pequeños a 2 g. = 3 t.; 4 g.; 6 dozenas de cajas de botinario grandes y pequeñas a 6 g. = 4 pt., 4 t.; 2 libras de comino a 1 t.; 6 g. = 3 t.; 2 libras de anzuelo = 4 t.; 2 libras de resina = 1 t.; 2 libras de alcantarera = 2 t.; 1 libra de cardéntillo en 6 t.; 3 libras de acoyte a 3 t. = 1 po. 1 t.; 1 libra de incienso en 6 t.; 1 libra de grasa en 2 t.; 1 libra de aceite en 2 t.; 1 arroba de almargado en 6 t.; ½ libra de alquisara en 2 t.; 1 libra de albahaca en 1 t.; 1 almend de canela seco en 4 t.; 1 libra de simiente de hinojera en 1 t.; 4 libras de albahaca a 3 t. = 1 po. 4 t.; 1 libra de violetas en 1 t.; 1 libra de sec en 1 t.; 6 libras de pez a 6 g. = 3 t.; 1 almend de albovís en 1 t.; ½ arroba de trematina a 1 t. = 1 po. 4 t. 6 g.; ½ almend de linaza en 6 g.; 4 onzas de sangre de dragón a 6 g. = 2 t.; ½ libra de alcalga en 2 t.; 1 libra de bolanico en 1 t.; 2 libras de alumbre = 6 tl.; 100 boles grandes y pequeños a 4 g. = 4 pt. 1 t.; 3 g.; 4 libras de diaquisón = 1 po.; 6 libras de diapromis en 1 po. 4 t.; 2 libras de laconario indio en 6 t.; 1 libra de confesiones amena en 3 t.; 1½ libra de queso de rosas en 3 t.; 6 libras de diasquinión en 4 t.; 6 libros de benedicta en 6 t.; 8 libros de jergbien en 1 po.; 6 libras de diatáce a en 6 t.; 10 libros de trisca en 2 t.; 1 libra de dialte en 5 t.; 8 libros de ungüento amarillo en 4 t.; 8 libros de ungüento bisapo bámedo en 1 po.; 8 libros de ungüento blanco en 4 t.; 9 libros de ungüento apostolorum en un po.; 4 libros de ungüento agrícola en 4 t.; 4 libros de ungüento sandalino en 6 t.; 1 libro de ungüento resaltivo en 2 t.; libro de ungüento marcián en 3 t.; libro de ungüento populeón en 2 t.; 1 libro de ungüento estomacal en

-Fábregas Troche, Sandra M. La Institucionalización de la Farmacia en Puerto Rico. UPR.2003, p. 64.
Discussion and Analysis

We assume that the botica founded in Puerto Rico was similar to the ones established in the south of Spain in the XVI century, for example in Granada. It have been composed of the structure of the pharmacy itself, a wooden ladder, a draw and a chest. The implements used to prepare and store the medicines were rudimentary, consisting of a copper ladle, a scale, boxes of varying shapes and sizes, for varying uses, jars of varying sizes and colours, some purgative sieves, a palette knife, a brass spoon, measures for syrups and oils, a small metal mortar with an iron pester and syrup and water flasks\(^\text{10}\).

Museum of the Conquest and Colonization of Puerto Rico

Note: Some artifacts of the original botica in Caparra, Puerto Rico (1512).

On the other hand, is evident in Inventories of other official pharmacies in Puerto Rico like the Botica Real founded in 1767, the presence of american drugs such as: guayaco or palo santo. Further impact of American remedies in the pharmacies in Spain have yet to be studied.

Guayaco’s description in the book of Nicholas Monardes.

Conclusions

The arrival of Hernando de Torres to Puerto Rico sets a new era for pharmacy in America as an institution separated completely from medical activities. This is evidenced through his credentials and the 1512 inventory brought from Seville to Caparra, Puerto Rico.

References