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Professor Hanson

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José Celestino Mutis and the Expedicion Botanica (Draft)

José Celestino Mutis is considered by many to be one of the key scientific figures of the Spanish Enlightenment, most notably for his botany work in the Spanish viceroyalty of Nueva Granada. Mutis was born on April 6, 1732, in Cádiz, Spain. He went on to study medicine, botany, physics, and chemistry at the University of Cádiz, before attending the University of Seville where he received his Bachelor's degree in 1753, and then his doctorate in medicine in 1757. Despite Mutis continuing his career in medicine, notably for a time being King Ferdinand VI's physician and also an anatomy professor, Mutis remained very passionate about botany, spending much of his time studying the plants within the Migas Calientes Botanical Gardens. In 1760, Mutis was appointed as the private physician of Pedro Messía de la Cerda, the viceroy of Nueva Granada, which marked the start of his work within Latin America.

Upon arriving in Santa Fe de Bogotá on February 24, 1761, Mutis turned to heavily focusing on his botanical studies. He observed the plant species within Nueva Granada, and began to write a book classifying them and their uses. Mutis was also incredibly interested in researching the effects of cinchona specifically, due to its multiple uses which could treat different diseases. Based on his research of cinchona, Mutis went on to publish *El Arcano de la Quina.*

Mutis was determined to further study the flora and fauna of the region, and in 1763 he made his first proposal to the king regarding the possibility of Spain sponsoring a botanic

expedition across Nueva Granada, a request which ended up getting refused. After the King's refusal to fund the expedition, Mutis requested financial assistance to start his own botanical garden instead. This request was also denied. Due to this lack of assistance, Mutis chose to return to Spain. In Spain, he continued teaching medicine, botany, and botanical drawing. He also continued his botanical research on the medicinal and agricultural uses of plants, continuing his studies on the effects of the quinine found within cinchona bark. Mutis ended up retiring, and relocated to Mariquita, a town within Nueva Granada. It was here that he befriended the new viceroy Antonio Caballero y Góngora, who on Mutis' behalf proposed the same previously rejected botanical expedition to the King. This time the King chose to accept the proposal, naming Mutis the first botanist and astronomer of the expedition.

In 1783, the Royal Botanical Expedition to New Granada, also known as the Expedicion Botanica, officially began. Mutis led this expedition for twenty five years, using the Magdalena river to travel; they covered more than three thousand miles of Nueva Granada, including what in the present day are known as Peru, Panama, Venezuela, Columbia, Ecuador, Brazil, and Guyana. The primary goal of this expedition was to classify, collect, and oftentimes illustrate the vast variety of plant species across Nueva Granada, as well as learning of their cultural and medicinal significance. Mutis was especially dedicated to harvesting samples of these plants, which he sent back to Spain. Mutis and his crew discovered and classified hundreds of never before studied plant species, species which they wrote detailed descriptions of, tested their uses, and collected as much information on as they could. This expedition resulted in not only notes and manuscripts being sent back to Spain, but over twenty-four thousand dried plants, five thousand botanical drawings, collections of wood, skins, shells, and minerals being sent as well. Much of this collection ended up being put in the Royal Botanical Garden of Madrid.

Note: Professor, I apologize for turning this in so late and also it being far under five thousand words. I had been hesitant to turn this draft in because of how short it is. I have had a lot on my plate recently and have been greatly struggling with writing this as what I have already included seems to already cover the basics that every source I can find discusses, as they do not go into great detail about much else. I am still searching for more sources to help me go in depth, and by the time the final draft is due I hope to have been able to at least get rather class to the 5k word count. Below I will include bullet points on some other stuff I am planning to include, as well as some quotes and images which will be in the final draft.

- "*It has been decided by intelligent experts that the plates produced in America under my direction have very singular advantages over everything that has been published up to the present in Europe.*" - Mutis
- I plan to discuss different plant species that were discovered on the expedition. As well as the medicinal uses that were discovered. Also, to include examples of the botanical drawings created on this expedition such as the ones on the next page.
- Go into detail about importance of expedition on scientific history
- Discuss more the logistical side of things, the other people involved.
- Include small excerpts by Mutis. Have not done so yet as my computer has not been cooperating with helping me translate to English. Planning to go to the library for this.
- Talk about *Flora de Bogotá o de Nueva Granada* and how it was immensely popular
- More about Mutis' teaching career, connection to mathematics, mentioned in SCience in Latin America page 74
- Mutis as a Copernican page 106 page 133. Failures of Expedition.


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