

Thursday Warm-Up (INTD262)

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1 Chapter 3 of *Science in Latin America*

1.1 Copernican and Newtonian Teaching in the Viceroyalty of New Granada

1. While "Copernican and Newtonian" theories were yet to be adopted in many universities in Nueva Granada in the mid-1700s, these ideas did take root in institutions that needed them. (a) What were some of these institutions? (b) Can you draw a scientific parallel to any institutions we have today?
2. Scientific expeditions throughout Nueva Granada began in the mid-1700s. In 1741, José Cassani published work on the flora of the Orinoco, and José Gumilla published *Orinoco ilustrado*. In the 1750s, Filippo Salvatore Gilij charted the Meta and Orinoco rivers using modern scientific techniques. (a) What did all these scientists have in common? (b) How did this enable them to disseminate their findings?
3. In Chapter 3 of *Science in Latin America*, we encounter the following quote:

La Universidad Gregoriana in Quito alone had "seventy-one foreign professors teaching at the university ... Native professors were twenty-one, of whom five were from Loja, four from Quito, three from Guayas, three from Cuenca, three from Riobamba, two from Ibarra, and one from Ambato." ... As a consequence, it is not strange that in a center of cultural ferment such as Quito, intellectual Jesuits were most closely linked to the Franco-Spanish geodetic mission directed by La Condamine and Jorge Juan.

(a) What scientific transition began to take place as a result of the interaction between foreign and Ecuadorian professors? (b) What can we infer about the ratio of the native professors at the university? (c) Consider Father Francisco Javier Aguilar, who taught physics and mathematics at Universidad Gregoriana. He taught no less than five world systems, and focused on three: Ptolemaic, Copernican, and Tycho. What distinguished these?

1.2 José Celestino Mutis and Juan de Hospital Declare Themselves Copernicans

1. In 1767, Mutis published *Reflexiones sobre el sistema tycónico*. (a) What were the main points of this publication? (b) Was it considered controversial?