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Professor Hanson
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Hispanic America's Historical Dynamics

1. The author lays out the central argument of the chapter in this section, which is the connection between merchant guilds, the domestic economy, and the constitution of enlightenment institutions. Please list some of the institutions, like colleges and botanical gardens (think of these as research institutes), mining guilds and corporations, etc. Give the dates, organized by country below:

(a) Mexico: The schools of Mining (1792), Botany (1788), and Arts (1785) were created

(b) Peru : The Chemical Metallurgical Laboratory (1792) established by the Mining Tribunal

(c) Venezuela (Caracas): Mathematics Academy (1760) supported by the business consulate.

(d) Guatemala: The Jardin Botanico (1796) and The Math and Drawing Schools (1797) were set up by the Economic Society of friends of the Country.

Modern Scientific Culture

1. Discuss the significance of empiricism, or the use of observations from instruments, on scientific culture. How was this different from Scholasticism? (Feel free to look up the definitions of these terms).

- During the time of the enlightenment where new ideas and concepts were spreading, empiricism emerged forth to challenge the traditional thought passed through generations from authority. Empiricism, which was observations and information gathered based off instruments or experiments, was more logical form of thought than scholasticism, which was a more of a philosophical and religious-influenced approach to thinking, because it supported their growing exploration for knowledge and its limitations.

Hispanic American Scientific Culture

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1. Notice the discussion of Scientific Libraries. Discuss the significance of the formation of private scientific libraries in Enlightenment period Hispanic America. What does the existence of these collections of new, modern books tell us about scientific culture at the time? Why were these books not in common libraries? What are a few other examples of the birth of modern scientific culture that more private than public or nationalized?

- The formation of private scientific libraries in Hispanic America was very important to introducing the newly found knowledge of European scientists and mathematicians despite the restrictions imposed by the countries. These private libraries owned by certain people can be shared with other scientists and mathematicians to unify and create a strong community to normalize what was being introduced to the world. These books weren't in common libraries because they were restricted to keep the established knowledge and the propagation of faith since the sciences being introduced can be proven and faith i.e religion cannot which made it so restricted.

2. Notice the discussion of Scientific and Technical Journals. Give several examples of scientific and technical journals emerging in the culture. When were they created and what did they cover?

- Some examples of scientific journals that were published were the Literary Magazine of Mexico (1768) which covered physics and mathematics, economics works on trade, agriculture, navigation and everything related to public welfare. Miscellaneous Science and Art Subjects (1772-1773) followed, Observations on Physics, Natural History, and the Useful Arts (1787-88), Mexican Literary Gazettes all published by Jose Antonio Alzate y Ramirez.

3. What was the significance of the debate over mining methods? Who eventually won the debate and why?

- The significance of the debate over the mining methods led to the superior method of mining ores by Bartolome de Medina from Mexico who won the debate 10 years later with his Patio Process. This showed that the Europeans or Spanish were not the only effective contributors to the enlightenment and processes associated with mining but elsewhere as well.