ABSTRACT: I argue that the European encounter of the New World is one of the key elements in the emergence of empirical practices that shaped sixteenth and seventeenth centuries science in Europe. The encounter made possible both the partial rejection of classical authorities and the validation of personal experience as a source of knowledge. These empirical practices emerged as part of the commercial and imperial activities surrounding the exploration and colonization of the New World. In this talk, I discuss the 1571-1577 expedition of Dr. Francisco Hernández to Mexico and his empirical method. Philip II sent Dr. Hernández to Mexico, Peru, and the Philippines to collect information about, and samples of, medicinal plants. Why? Who proposed this idea? How did he accomplish his project? At the end, Hernández only stayed in Mexico (for six years) and the result of his work included, at least, 1,100 paintings of plants. Who made those paintings and how? My paper discusses the different issues involved in the Hernández expedition and puts this expedition in the larger context of the Spanish American colonial and commercial context.