Introduction: Revisiting Early Modern Iberian Science, from the Fifteenth to the Seventeenth Centuries

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It cannot be said that historical studies of the scientific activities in Portugal and Spain in the early modern period are a completely new topic of research. On the contrary, they have had a long and rich tradition extending for more than a century. But it is also true that in the past twenty years or so the topic has acquired a renewed appeal and has attracted a new generation of historians of science – despite the fact that, in some quarters, silence still seems to be the norm.¹

In a sense, the renewed interest in the history of Iberian Science has been an unanticipated consequence of profound changes in the historiography of science in the past few decades. By moving the focus of attention from intellectual to cultural and finally to social processes, historians of science have also radically altered the relevant personae and the script in the story of the historical evolution of science. Few historians today would accept the reductionism that equates the ‘birth’ of scientific modernity to a chapter in the history of astronomy. Fewer still would accept a narrative built upon the intellectual

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feats of a few carefully selected geniuses. Historians today are interested and willing to explore much broader vistas. Cultural processes that led to the formation of large political and commercial empires offer rich and compelling historical explanations of the origins of the modern world. Epistemic phenomena associated with the practices of the lower strata of societies attract ever more historians. The age-old distinctions between the practical and the theoretical have been challenged. Even the geographical bounds that limited previous descriptions now seem too narrow: to authors such as Kapil Raj, modern science is no longer the European goddess that consolidated the borders of Europe and then spread through the rest of the planet. The field of “Iberian Science” emerged from this great variety of methods and approaches.

The term “Iberian Science” does not refer to a nationalistic or epic notion of scientific accomplishment. In fact, the concept flatly refuses any essentialist interpretation. It is rather a descriptive tag that identifies a specific way of doing science that took shape in consequence (sometimes in response) to a very particular set of economic, political and social conditions. In the second half of the fifteenth century, in just a few decades, local, agrarian and medievally-structured kingdoms became the rulers of gigantic sea-empires, with commercial networks traversing various oceans and operating in different continents. These events introduced deep stresses into the economic, political and social fabric of Iberian societies, and these tensions obviously shaped the practice and the contents of science. “Iberian Science” thus refers to the scientific practices produced in Spain and Portugal during the era of geographical discoveries and overseas expansion. These practices were deeply imbued with the imperial ecumenical pretensions of the Iberian monarchies and adopted a set of characteristics that are not found in other parts of Europe in the same period. Some of the distinctive components of “Iberian Science” are: the establishment of new empirical practices; the onset of large-scale movements (formal, semi-formal and informal) of collecting new information about the natural world; the participation of people from all walks of life in the study of nature; the renegotiation of the sources of credibility in knowledge about the natural world; the dissemination of scientific concepts among the less educated strata of society; the growth of technical and scientific literature in the vernacular;

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