

Nature Knowledge in Early Modern Europe and Japan: Toward A Global History of Convergent Developments

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Between the seventeenth and the eighteenth centuries, in both Europe and Japan, new disciplines of nature studies branched off the traditional fields of medicine and *materia medica*. *Historia naturalis*, in Europe, and *honzōgaku*, in Japan, autonomously developed along convergent paths without directly influencing each other. They were both independently supported by an expanding population of specialized practitioners; by institutions more or less officially backed by political powers; by a growing public of consumers of books, atlases, and lectures; by greater volumes of exotic specimens of plants and animals circulating through the new global trading routes; and by new conceptualizations that conceived of a specialized knowledge of the natural properties of minerals, plants and animals as supporting the growth of different local and regional economies. *Historia naturalis* and *honzōgaku* independently developed new sophisticated protocols of observation, description, reproduction, and manipulation of specimens as well as new technologies of classification of natural species. In both Europe and Japan specimens of plants and animals as well as information and knowledges about them were thoroughly commoditized and exchanged through market transactions. In Europe, *historia* and *philosophia naturalis* are often regarded as the progenitors of those disciplines, methods, and goals that in the nineteenth century would be institutionalized as modern sciences. In Japan, *honzōgaku* knowledges and practices were translated and adopted into the new scientific disciplines introduced from the West in the second half of the nineteenth century, but such passage remained largely disavowed during the process of modernization and westernization of Japan after the Meiji Restoration of 1868.

This paper will explain the development of the surprising convergences between *historia naturalis* and *honzōgaku* in the early modern period. It compares the intellectual exchanges of V.O.C. surgeons and naturalists like Engelbert Kaempfer, Carl Peter Thunberg, and Franz von Siebold with Japanese naturalists and argues that in both Western Europe and Japan a combination of weak political power of the ruling aristocratic elites and the transformation of both societies along mercantilist lines favored the development of similar instrumentalist conceptions of nature knowledge.