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HUMBOLDT'S NODES AND MODES OF INTERDISCIPLINARY ENVIRONMENTAL SCIENCE IN THE ANDEAN WORLD*

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ABSTRACT. Alexander von Humboldt engaged in a staggering array of diverse experiences in the Andes and adjoining lowlands of northwestern South America between 1801 and 1803. Yet examination of Humboldt's diaries, letters, and published works shows how his principal activities in the Andes centered on three interests: mining and geological landscapes; communications and cartography; and use and distribution of the quinine-yielding cinchona trees. Each node represented a pragmatic concern dealing with environmental resources in the context of the Andes. To pursue these interests in his Andean field studies, Humboldt relied on varied cultural interactions and vast social networks for knowledge exchange, in addition to extensive textual comparisons. These modes of inquiry dovetailed with his pragmatic interests and his open-ended intellectual curiosity. Fertile combinations in his Andean studies provided the foundation and main testing ground for Humboldt's fused nature-culture approach as well as his contributions to early geography and interdisciplinary environmental science. *Keywords:* Andes, cartography, economic botany, Alexander von Humboldt, mining.

The contributions of Alexander von Humboldt (1769–1859) to early geography and environmental science depended on diverse experiences during his travels and sojourns in the Spanish colonial possessions of the Americas and West Indies (South America, Mexico, and the Caribbean) between 1799 and 1804. Humboldt drew on his experiences in the Spanish colonies to enable his success as one of the most influential public intellectuals of the nineteenth century (Bunkše 1981; Gould 1989; Bowler 1993; Walls 1995; Nicolson 2006; Sachs 2006).¹ He is known to have relied on a dense network of cultural and social interactions with his contemporaries in the

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