

國立陽明交通大學科技與社會研究所
115 學年度碩士班考試入學複試筆試試題

科目：英文閱讀與理解

★說明：以下兩題為翻譯題（英翻中）。若時間不足，請就各題內容儘量說明與解釋。

Science and technology have at times served as important legitimators of imperialism and colonialism. When Europe started its colonial adventures the differences between European and non-European technological ability were typically small enough that they did not provide a justification for colonialism; religion served that purpose. That changed, perhaps in part because of colonialism. By the nineteenth century, European technological development, measured in terms of military power, the mechanical amplification of human labor, or other ways, did form an explicit justification for colonialism. Technology was a symbol of Europe's modernity, and was something that Europeans could generously take to the rest of the world. Often, though, that the technology transfer from Europe to its colonies resulted more in underdevelopment and dependence relationships than in the hoped-for industrialization. In broad terms, this theme has continued to be important in debates about the environmental impacts of the exportation of Western agriculture and forestry.

Sergio Sismondo, "Political Economies of Knowledge," in *An Introduction to Science and Technology Studies*, 2nd ed. (Malden, MA: Blackwell, 2010), 195–196.

The history of electrification emerged as fertile ground for comparative history. Jonathan Coopersmith's *The Electrification of Russia*, which also aligns itself with SCOT, noted that Hughes's model was not representative of the world outside the Western industrialized world. The different emphasis of Nye's and Coopersmith's narratives stemmed from economic and societal differences between the United States and Russia. The use-based history of technology that emerged in the early 2000s not only moved further away from technological aspects but also decried the innovation-centric accounts that privileged wealthy industrialized nations and called for a truly global perspective that considered the impact of technology on poor and nonwhite populations. Making the above point in *The Shock of the Old*, David Edgerton called on historians of technology to "shift attention from the new to the old, the big to the small, the spectacular to the mundane, the masculine to the feminine, the rich to the poor." Electrical power systems, having been around for more than a century, serve as an ideal object of historical inquiry to explore the comingling of new and old.

Ying Jia Tan, *Recharging China in War and Revolution, 1882–1955* (Ithaca: Cornell University Press, 2021), 13.