

DOCTORAL THESIS

Technologies and paradigms of vision: from the scientific revolution of the Edo period to contemporary Japanese animation

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Abstract

This thesis is mainly concerned with uncovering the meanings and associations embedded in the field of popular culture production in Japanese and European sociocultural contexts, using a comparative approach to unearth the effects, materials, and paradigms of the technological and scientific discourses during the Scientific Revolution. Linking the fields of the anthropology of technology and science, popular culture, and material culture studies, the thesis offers a historical overview of the development of machines and visual technologies in the Edo period, arguing that visibility is the key to delayering the cultural history of technology and science in Japanese popular culture, animation in particular. The objective of this work, therefore, is to look at the assemblage of the scientific, technological, and philosophical discourses to unveil the cultural processes between optical regimes, scientific practices, and popular culture. In its emphasis on the interconnectedness of visual technologies and the field of popular culture production, the thesis asserts that scientific development, particularly under the influence of the Scientific Revolution and Japanese *Rangaku* scholarship, is closely tied with the function of entertainment in Japanese society. With the understanding of technology as a total social phenomenon that interlocks the material and the symbolic in a complex network, which produces meanings and associations, the thesis further stresses the view that intellectual history cannot be separated from material culture studies; it also grapples with a number of existing scholarships on the history of science, particularly their inattentiveness to cultural histories in their historical surveys of scientific development. Finally, this work closely examines Oshii Mamoru's *Ghost in the Shell* and its sequels and the *anime*

TV series *Psycho-Pass* to explore the tangled responses to the ideologies of the Euro-American mode of modernity.

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