Iris Shu
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This paper concerns how one of the fathers of cinema, Etienne-Jules Marey, introduced the motion image within the scientific laboratory to study motion, and its impact on the modern body at the turn of the 20th century in France. I will specifically trace the dissociation of motion from the body, and the subsequent creation of a docile, eidetic corporal ideal with Marey's predecessors' re-synthesis of chronophotography through cinematography. I will explore this phenomenon in academic, military, industrial, and athletic settings in instructing the national subjugation of the body. This research intends to contribute to the historiography of the history of science. In the past decades, this discipline has emerged from criticizing the dominant linear narrative of scientific progress.

Though the acceptance of cinematography was predicated upon prior adoption of photography in the laboratory, the turn to the motion picture was not a given. The acceptance of film as appropriate within a scientific field depended on disciplinary experts, who increasingly pursued scientific "objectivity" through technology. In fin-de-siècle Europe, when synthesis of movement became central in understanding modern life, the transition to scientific cinematography revolved around shifting conceptions of space and time. If the reorientation of the time-space continuum was at the center of the genesis of modernity, and movement was the very product of time and space, and at the center of life—then the body became the site of these emerging crises of modernity. In the science of work, an ergonomics of the laboring body, experts integrated the temporal dimension of the motion image to objectively articulate and confront anxieties of the development of modern industrial fatigue.

Modern scholarship has noted that both metaphysical and political reasoning of the body hinges upon its docility. Through representation and intervention of the scientist, both the subject (body)—which becomes object—and the apparatus (camera) become civilized and docile. The abstraction and geometrization of the body in the works of Marey and his collaborators dissolved the distinct identity of the anthropomorphic body to extract universal laws of motion. The cinematographic reanimation of movement rendered a new, ideal image of physicality that was used by Marey's predecessors, namely Georges Demeny, to edify the physical education of soldiers, workers, and athletes—who would become symbols of the emerging nation-state in the 20th century.

This paper will draw from a combination of primary and secondary sources, and written and visual documents to examine early cinematography and its relationship with scientific objectivity, particularly in physiological studies, and its historical consequences. I will primarily use Scott Curtis's *The Shape of Spectatorship: Art, Science, and Early Cinema in Germany*, whose research on the scientific framework of cinematography analyzes film after the well-studied work of Marey, as a theoretical framework to examine scientific cinematography. *The Human Motor* by Anson Rabinbach supplements additional theory in the European science of work. Their work will guide my analysis of primary sources from Marey, Demeny, and their contemporaries and predecessors. This includes films, publications like Marey's *La machine animale,* Demeny's *Mecanisme et Education des Mouvements,* and articles and images published in journals like *La nature*.