Designing and Defining Wasteful Margins: Powered by Waste

Organizer: Jung Lee

Waste seems defined not by what it is but mostly by how it is related to humans, making it a most anthropocentric and fluid concept. A perfectly functioning computer becomes waste when humans find it obsolete and do not want it in their lives. By this so-called "planned obsolescence," industrial development has been a struggle to design waste into our production and consumption cycle. Yet, on the other hand, it has also been a struggle to eliminate all kinds of waste, such as the wasteful moves of bricklayers as defined by Frederick Winslow Taylor. This panel looks into these struggles to define and design waste over time in modernizing East Asia, where most of the world's industrial waste is now produced, consumed, and discarded, with serious environmental consequences. We will examine waste engineering in history by seeing who defined and designed waste and how it was denied and accepted by others. By zooming in on those empowered or disempowered by defining and designing waste, we will reveal the constant politics over waste among different groups of people and things. We will present four case studies in reverse-chronological order. First, elite industrial engineers from Tsinghua University, who established themselves as a crucial force for China's shift to a market economy in the very late twentieth century by newly conceptualizing and categorizing waste from the preceding planned system. Second, cleanroom operators and maintainers of a microelectronics factory in late twentieth century Korea, who led a most efficient microelectronics industry by checking all their wasteful behavior until finally conceiving of themselves as waste. Third, Japanese agricultural bureaucrats who measured waste at all junctures of colonial cotton cultivation and sale, taking on an important role in empire building while leaving an indelible mark on rural societies by a new division of labor and an organizational infrastructure. Finally, struggles over waste between paper artisans and scholar-officials in Chosŏn Korea. Together, we will try to show how these struggles over waste, featuring the different strategies of multiple actors, were important not just in producing or removing waste but in shaping relations in industrial and agricultural labor, production, and consumption. With this heightened understanding of waste politics, we hope to reach a better collective understanding on how we live with waste.

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Chair: Francesca Bray

1 **In Pursuit of Productivity: Industrial Engineering in Modern China**, Victor Seow, Harvard University

"In Pursuit of Productivity" traces how the elite industrial engineers at Tsinghua University had established themselves as a crucial reforming force in late twentieth century China by newly conceptualizing and categorizing waste from the preceding planned system with their logic of a market economy.

2 **Self-defining Waste: Cleanroom Operators and Maintainers in the Microelectronics Industry in 1980s-2000s Korea,** Sangwoon Yoo, Seoul National University

"Self-defining Waste" explores how cleanroom operators and maintainers in the microelectronics industry in South Korea came to lead the success of the industry by checking their wasteful behavior for the zero defect rate and the faster and faster conveyor belts, until finally wasted by and expelled from it.

3 **Measuring Waste at the Margins: The Economics of Cotton Cultivation in Colonial Korea, 1910-1945,** Holly Stephens, University of Edinburgh

"Measuring Waste at the Margins" looks into how Japanese agricultural bureaucrats transformed the cotton cultivation and sale in colonial Korea by measuring various waste in them and placing their product in the vast imperial network of cotton while transforming colonial rural societies with their division of labor and organizational infrastructure.

4 **Making Waste one's Own: the Artisanal Capitalization of Waste**, Jung Lee (Organizer), Ewha Womans University

"Making Waste one's Own" examines how paper artisans and farmers came to create what scholar-officials tried to define as unnecessary paper margins and crops to increase their share in the harsh levy and tax regime of late Chosŏn Korea in creating their "industrious revolution."