Governing the City and the Infrastructure of Sunlight in Prewar Japan

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It seems that people are more and more focusing on the use of resource of sunlight as one of the resolution of the urgent environmental issues. We can see its embodiment in not only the solar power as alternative energy but also the enhancement of lighting function in buildings for energy-saving objective. It is commonly believed that these are effective because of using the omnipresent resource of the sunlight. However, from the historical point of view, sunlight cannot necessarily be used everywhere and can be used enough only after the improvement of built environment. That is to say, the use of sunlight today is neither obvious nor historically new. It has not been elucidated about the usage of resource of sunlight as compared to the resources like water or forest.

To better understand it, we aim to consider the historical condition how sunlight became to be utilized as "natural light" in prewar Japan after reviewing previous studies. Especially, we focus on the infrastructure making it possible to supply sunlight. Using discourse analysis, we have shown that the usage of sunlight was understood in the context of the government of the city and that some urban planners and their techniques engaged transnationally in this process in prewar Japan. From the review of recent studies on the infrastructure, it was pointed out that governmentality studies and transnational infrastructure studies were the new challenge focusing on the power or the transnational role of infrastructure. As a result of analyzing prewar Japan from this point of view, it was indicated that the sunlight was found as a resource to resolve urban problem and was delivered into the houses by means of the improvement of infrastructure like the urban planning and the installation of windowpane. It was understood as the countermeasure to resolve the hygiene problem and the poverty problem by using a method of not direct intervention but indirect one, which aimed at governing rationally the city. In addition to that, this view was closely connected with the government of colony. It means that some urban planners and their techniques moved beyond the border between metropole and colonial cities in East Asia and that they engaged in the making of built environment in these cities.

These findings indicate that sunlight as a resource had the important position on governing the city and the urban infrastructure was improved for the circulation of it and that this process was practiced in the context of the imperialism in prewar Japan. It is under this historical condition that the use of sunlight as a natural energy today is available. These results provide new insight into understanding the significance of the political aspect and transnational network on infrastructure when we think about the environmental issues and energy problem today.