

Spatial conditions related to the sublimity of the shrine forest of Meiji Jingu :Landscape evaluation of the 100-years plan forest at 100 years after afforestation

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Meiji Jingu is a shrine which built in 1920. The shrine forest of Meiji Jingu was also afforested at the same time aimed sublime landscape scenery with an over 100-year plan, a pioneering attempt at the time using the mechanism of plant succession. Hence, the purpose of this research is to assess whether the shrine forest reached a sublime landscape and, what spatial condition let the forest sublime by on-site evaluation of landscape scenery in the year of 2020 that is target year of the forest plan. A survey composed by visitor employed photography and questionnaire was conducted at Meiji Jingu with 90 respondents using Survey 123(Esri Inc.), an application which can collect geotagged photographs. The respondents were instructed to take over 10 geotagged photographs of landscapes which respondents felt sublime during walking along approach road in Meiji Jingu. Immediately after walking the site, respondents were evaluated the forest of Meiji Jingu by 17 measures and answered whether sublime or not and its reason.

951 photographs were collected, and its objects were identified by ten categories. The largest number of objects was "forest", the second was "tree" each accounted for 21.2 % and 18.2 % of the total photos. The result of GIS analysis, four popular location was identified related to spatial feature: 1) vicinity of the big torii gate of the shrine, 2) vicinity of a stream, 3) vicinity of the wine barrel buildings 4) vicinity of the main shrine buildings. The result of questionnaire showed, 98.9 % of respondent felt sublime to the shrine forest of Meiji Jingu. The largest number of the reason was "tree height" and, the second was "tree density", each accounted for 40.0 % and 24.4 % of the total respondents.

As a result, it became clear that one hundred years have passed since the shrine forest had afforested it evaluated as a sublime forest from respondents in the current era. Height of crown trees which had planted hundred years ago have reached over 25m height, tree height affected to sublimity of the forest. The shrine forest plan had aimed dense and dark forest by multi-storied forest management, tree density affected to the evaluation as well. The sublimity of Meiji Jingu is composed not only shrine buildings, but also forest is a rather important role. These were beneficial knowledges to develop the shrine forest of Meiji Jingu and its management.

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