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Contemporary Arts Practice and Outer Space: A Multi-Disciplinary Approach (3)

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BUTTERFLY GARDEN IN THE SUN – DESIGNING AN OPEN SPACE AT THE KWASAN  
OBSERVATORY

**Abstract**

How can humans appreciate the hidden beauty or wonders of the Sun in an artistic way? Fostering this question, we introduce a new type of garden: *Butterfly Garden in the Sun*, in collaboration with the Kwasan Observatory, Kyoto University. In recent years, the role of this observatory has been gradually shifting towards education and culture from their original scientific research purpose, handing over its cutting age research function to its new observatory in Okayama. With this background, a garden – an open space where there is no boundary between the inside and the outside, and which also seeks to connect the observatory and the society – was created in the course of the annual open weeks of the Kwasan Observatory, Kyoto University in 2020. In this paper, the concept, the design processes, and the result of this project, together with the vision for continuous collaboration, are discussed. The Sun has always been a fundamental research topic of the Kwasan Observatory since its establishment in 1929. The newly-created garden integrates the idea of the Japanese gardens, whose ever-lasting concept underlying a poetic transformation of the universe and their landscape design are merged with astrophysical insights of the Sun. In particular, the structure of the solar magnetic field will be transformed into the design of a suitable layout regarding the particularities of the site that would enrich the totality of the atmospheric aesthetics. Furthermore, a butterfly diagram (a graph where the latitudes of sunspots are plotted over the sunspot cycle that resembles a form of butterflies), which the observatory has been working on for years for both educational and research purposes, becomes a motif of this garden. It allows visitors to move around the space while appreciating the visible colors of the solar spectrum emerging through the butterfly-shaped spectral filters when the sunlight arrives on the ground. Despite the difficult situation during the pandemic, a limited number of visitors had the chance to experience this garden on site along with the guided tour. However, a more intuitive communication with collaborators and visitors, together with an enhanced design of the garden can be further developed. We hope that this garden will open up the human mind through lively experiencing the space, which evokes an imagination towards the Sun and even beyond to the entire universe, and it will generate a rich and expansive meaning of gardens for humans.