ABSTRAK

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PERANCANGAN ADAPTIVE REUSE FASILITAS EDUKASI ALAM UNTUK ANAK DENGAN PENDEKATAN DESAIN INSIDE-OUTSIDE PADA KOMPLEKS KLHK JAKARTA
(viii + 64: 40 gambar; 7 tabel)

Anak-anak sebagai generasi penerus akan menghadapi tantangan global yang semakin kompleks, terutama terkait krisis lingkungan akibat pemanasan global. Di sisi lain, pesatnya urbanisasi telah mendorong perpindahan Ibu Kota Negara, yang menyebabkan sejumlah bangunan pemerintahan di Jakarta akan ditinggalkan, termasuk kantor Kementerian Lingkungan Hidup dan Kehutanan (KLHK). Kondisi ini membuka peluang untuk mengubah kawasan tersebut menjadi ruang publik yang mendukung pendidikan lingkungan bagi anak-anak. Penelitian ini bertujuan merancang fasilitas edukasi alam di Jakarta dengan strategi desain yang menggabungkan konsep *nature in architecture*, *threshold*, kurikulum edukasi alam bagi anak, serta *arsitektur inside-outside*. Integrasi antara konsep alam, *threshold*, dan kurikulum edukasi alam menghasilkan 18 metode desain yang disusun dalam tiga lapisan transisi, yaitu dari lapisan terluar *activities with nature*, ke *activities in nature*, hingga lapisan terdalam *nature in activities*. Integrasi ini menghasilkan strategi desain seperti *erasing parts to create threshold, continuity between interior & exterior, infusing threshold in building design, open space rooftop as threshold in building design, building design with physical barriers and visual connection,* serta *intertwining interior & exterior* yang telah terintegrasi dengan konsep *nature in architecture.* Pendekatan ini membangun keterhubungan yang kuat antara ruang dalam dan luar, sehingga menghasilkan arsitektur *inside-outside* yang mengaburkan batas antar ruang sebagai bagian dari pengalaman belajar anak-anak di alam. Desain ini dapat diterapkan pada fasilitas pendidikan yang terhubung langsung dengan area hijau di sekitar KLHK. Elemen alam memungkinkan anak-anak untuk berinteraksi langsung dengan lingkungan, sementara konsep *threshold* berfungsi sebagai penghubung dan peralihan dari ruang tertutup ke ruang terbuka. Desain ini juga memasukan lima konsep utama dalam kurikulum edukasi alam, yaitu *cultivation, exploration, embodiment, representation,* dan *appropriation,* yang bertujuan membangun hubungan yang kuat antara anak dan lingkungan alam mereka. Metode yang digunakan dalam penelitian ini meliputi survei lapangan dan studi literatur sebagai dasar pengumpulan data, serta eksplorasi model digital dan analog untuk mengembangkan konsep dan desain. Penelitian ini telah dipublikasikan pada Prosiding Konferensi *13th International Conference of Asian Institute of Low Carbon Design* (AILCD 2025) yang diselenggarakan pada tanggal 21 – 24 Februari 2025 di Kitakyushu Jepang.

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Kata Kunci : Edukasi Alam Anak, *Threshold, Regenerative Architecture*

ABSTRACT

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ADAPTIVE REUSE DESIGN OF A NATURE EDUCATION FACILITY FOR CHILDREN WITH AN INSIDE-OUTSIDE DESIGN APPROACH IN THE KLHK COMPLEX, JAKARTA

(viii + 64 pages: 40 images; 7 table)

Children as the next generation will face increasingly complex global challenges, especially related to environmental crises caused by global warming. On the other hand, rapid urbanization has driven the relocation of the National Capital, causing several government buildings in Jakarta to be abandoned, including the office of the Ministry of Environment and Forestry (KLHK). This situation opens opportunities to transform the area into public spaces that support environmental education for children. This study aims to design a nature education facility in Jakarta with a design strategy integrating the concepts of nature in architecture, threshold, nature education curriculum for children, and inside-outside architecture. The integration of nature, threshold, and nature education curriculum concepts results in 18 design methods arranged in three transition layers: the outermost layer activities with nature, activities in nature, and the innermost layer nature in activities. This integration produces design strategies such as erasing parts to create thresholds, continuity between interior and exterior, infusing threshold in building design, open rooftop space as threshold in building design, building design with physical barriers and visual connection, and intertwining interior and exterior integrated with the concept of nature in architecture. This approach builds a strong connection between indoor and outdoor spaces, creating inside-outside architecture that blurs boundaries between spaces as part of children's learning experiences in nature. This design can be applied to educational facilities directly connected to the green areas around KLHK. Natural elements enable children to interact directly with the environment, while the threshold concept serves as a connector and transition from enclosed to open spaces. The design also incorporates five main concepts in the nature education curriculum: cultivation, exploration, embodiment, representation, and appropriation, aiming to build a strong relationship between children and their natural environment. The methods used in this study include field surveys and literature studies as data collection bases, along with exploration of digital and analog models to develop concepts and design. This research was published in the Proceedings of the 13th International Conference of Asian Institute of Low Carbon Design (AILCD 2025), held February 21–24, 2025 in Kitakyushu, Japan.

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Keywords : Children's Nature Education, Threshold, Regenerative Architecture