

TESIS

**Research on Visual Impact of Coastal Structures on the
Landscape - A Case Study of the Five Fishing Villages in
Toucheng**

Dampak Visual Struktur Pesisir terhadap Lanskap - Studi Kasus Lima Desa Nelayan di
Toucheng



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Research on Visual Impact of Coastal Structures on the Landscape -

A Case Study of the Five Fishing Villages in Toucheng

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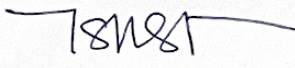
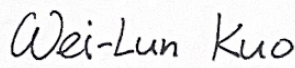
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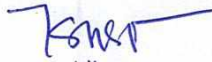
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Benar-benar hasil karya saya sendiri.

Pernyataan, gagasan, serta kutipan baik yang bersumber langsung maupun tidak langsung dari tulisan atau gagasan orang lain yang saya gunakan dalam penelitian untuk Tesis ini telah saya dokumentasikan melalui daftar pustaka, dan mematuhi norma dan etika penulisan karya ilmiah yang berlaku.

Saya bersedia menerima sanksi yang berlaku sesuai peraturan di Program Studi Magister Arsitektur Universitas Atma Jaya Yogyakarta jika di kemudian hari ditemukan bukti yang memberatkan bahwa saya melakukan plagiarisme sebagian atau seluruh hasil karya ini. Saya paham bahwa gelar dan ijazah yang saya terima dapat dinyatakan batal dan harus dikembalikan kepada Universitas Atma Jaya Yogyakarta.

Demikian surat pernyataan ini saya buat dengan sebenar-benarnya, sungguh-sungguh, dan dengan sepenuh kesadaran serta kesediaan untuk menerima segala konsekuensinya.

Yilan, 23 Juli 2025

Yang menyatakan,




Kelly Lim

INTISARI

Erosi pantai, yang diperparah oleh perubahan iklim, membutuhkan struktur buatan untuk perlindungan masyarakat, khususnya di daerah seperti Kabupaten Yilan, Taiwan. Meskipun secara fungsional penting, struktur ini mengubah karakter visual daerah pesisir yang indah, berpotensi memengaruhi pariwisata dan kualitas hidup lokal. Penelitian ini membahas: "Apa dampak visual yang dirasakan dari struktur pengelolaan erosi pantai terhadap kualitas pemandangan di Lima Desa Nelayan Toucheng?". Tujuan penelitian ini adalah (1) menilai karakteristik visual struktur (skala, bentuk, warna, bahan) relatif terhadap lingkungannya, (2) mengevaluasi kontribusi atau kerugiannya terhadap kualitas pemandangan, dan (3) menganalisis persepsi pengunjung. Pendekatan metode campuran menggabungkan analisis visual kualitatif (dokumentasi fotografi, catatan observasi) dengan survei kuesioner komprehensif. Analisis data melibatkan statistik deskriptif untuk respons kuantitatif dan analisis tematik untuk umpan balik kualitatif. Temuan dari penilaian dampak visual di Waiao, Gengfang, Daxi, Dali, dan Shicheng mengungkapkan wawasan penting. Struktur yang menempati kurang dari 20% pandangan memiliki dampak volume "Sangat Signifikan". Analisis kluster warna (nilai ΔE) menyoroti kontras visual, dengan struktur gelap dan menonjol menunjukkan kontras tinggi terhadap latar belakang alami. Persepsi pengunjung secara konsisten menyukai intrusi struktural minimal; "persentase kecil" struktur lebih disukai, sementara persentase yang lebih besar mengurangi daya tarik. Ini menggarisbawahi kebutuhan kritis akan desain dan integrasi yang cermat. Sebagai kesimpulan, pengelolaan pesisir yang efektif harus menyeimbangkan faktor teknik dan ekologi dengan dampak visual dan estetika, menginformasikan pedoman pengembangan di masa depan untuk solusi yang harmonis dan berkelanjutan di zona pesisir yang indah.

Kata Kunci: Daerah Pesisir, Struktur Pesisir, Dampak Visual, Pemandangan Alam Nasional, Lanskap

ABSTRACT

Coastal erosion, exacerbated by climate change, necessitates artificial structures for community protection, particularly in areas like Yilan County, Taiwan. While functionally vital, these structures profoundly alter the visual character of scenic coastal areas, potentially impacting tourism and local quality of life. This research addresses: "What are the perceived visual impacts of coastal erosion management structures on the scenic quality of the Toucheng Five Fishing Villages?". The study's objectives were to (1) assess structures' visual characteristics (e.g., scale, form, color, materials) relative to their environment, (2) evaluate their contribution to or detriment to scenic quality, and (3) analyze visitor perceptions. A mixed-methods approach combined qualitative visual analysis (systematic photographic documentation, observational notes) with a comprehensive questionnaire survey. Data analysis involved descriptive statistics for quantitative responses and thematic analysis for qualitative feedback. Findings from detailed visual impact assessments across Waiao, Gengfang, Daxi, Dali, and Shicheng revealed significant insights. Even structures occupying less than 20% of the view were deemed to have a "Very Significant" volume impact. Color cluster analysis, using ΔE values, highlighted visual contrast, with dark, prominent structures showing high contrast against natural backdrops. Visitor perceptions consistently favored minimal structural intrusion, with questionnaire results indicating that "small percentages" of structures were preferred, while larger percentages detracted from perceived attractiveness. This underscores the critical need for thoughtful design and integration. In conclusion, the study emphasizes that effective coastal management must balance engineering and ecological factors with visual and aesthetic impacts, informing future development guidelines for harmonious and sustainable solutions in scenic coastal zones.

Keywords: Coastal Areas, Coastal Structures, Visual Impact, National Scenic View, Landscape

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Any errors or omissions in this research are solely the responsibility of the author.

Sincerely,
Kelly Lim
July 22, 2025

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