

Strategies for Integrating Hainan Regional Culture into Landscape Architecture Design Curriculum in Vocational Undergraduate Education

Bo Yuan*

Hainan Vocational University of Science and Technology, Haikou 571126, Hainan, China

**Author to whom correspondence should be addressed.*

Copyright: © 2026 Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License (CC BY 4.0), permitting distribution and reproduction in any medium, provided the original work is cited.

Abstract: Against the dual backdrop of Hainan Free Trade Port development and the National Ecological Civilization Pilot Zone initiative, the landscape architecture industry faces growing demand for high-level technical professionals with ecological design capabilities, regional cultural literacy, and practical vocational skills. Vocational undergraduate programs are positioned to serve local industrial development, with landscape architecture design courses serving as core curricula that cultivate students' design competencies, aesthetic sensibilities, and engineering practice abilities. However, some vocational colleges currently exhibit issues such as overemphasizing Western paradigms while neglecting local characteristics, prioritizing technical skills over cultural depth, and focusing on theoretical instruction rather than practical implementation, resulting in a disconnect between talent cultivation and Hainan's actual needs. Grounded in Hainan's regional cultural characteristics and vocational education objectives, this study analyzes the value and challenges of integrating regional culture into curriculum design. It proposes systematic integration strategies across six dimensions, teaching philosophy, course content, instructional methods, practical training, evaluation systems, and faculty development, to provide theoretical references and practical pathways for curriculum reform, cultural heritage preservation, and cultivating high-quality local professionals in vocational landscape architecture education.

Keywords: Hainan regional culture; Landscape architecture design; Vocational undergraduate program; Curriculum reform; Industry-education integration

Online publication: March 26, 2026

1. Introduction

As China's urban development shifts from "incremental expansion" to "quality enhancement of existing resources", the landscape architecture industry is placing increasing emphasis on regional characteristics, ecological resilience, and cultural heritage. As the country's only tropical island province, Hainan boasts diverse cultural resources, including Li and Miao cultures, maritime culture, Nanyang overseas Chinese culture, Dongpo culture, volcanic culture, tropical ecological culture, and red culture, which serve as invaluable local materials for landscape design.

Vocational undergraduate education is designed to cultivate high-level technical professionals, emphasizing both academic rigor and practical expertise. Students are expected to not only master design and drafting skills but also possess

a deep understanding of regional contexts, cultural nuances, implementation strategies, and industry dynamics. However, many landscape architecture programs in vocational colleges still adhere to conventional undergraduate or vocational models: textbooks predominantly feature Western theories, case studies rely heavily on viral projects worldwide, software training prioritizes technical proficiency over cultural comprehension, and practical components remain disconnected from Hainan's local projects. This disconnects results in graduates who struggle to create designs reflecting Hainan's unique style, lack familiarity with indigenous materials and construction techniques, and fail to meet the demands of local enterprises ^[1].

The organic integration of Hainan regional culture into landscape architecture design courses represents a high-level unification of curriculum quality enhancement, cultural heritage preservation, and employment orientation. This paper explores teaching reform strategies suitable for vocational undergraduate education by addressing three key questions: "why integrate, what to integrate, and how to integrate", thereby facilitating the transition of courses from "skill training" to "cultural empowerment + career orientation".

2. Relevant concepts and research foundation

2.1. Core components of Hainan regional culture

Hainan's regional culture is a diverse cultural system shaped through long-term historical development, characterized by distinct island features. It can be summarized as follows: Li and Miao indigenous cultures, including Li brocade patterns, boat-shaped houses, frog deity totems, bamboo and rattan construction techniques, mountain orchid culture, and the nasal flute; Oceanic and Danjia culture, encompassing coconut breeze and maritime charm, fishing and farming traditions, mangrove ecosystems, wave symbols, and Danjia folk customs; and Southeast Asian and overseas Chinese hometown culture, featuring arcade buildings, arched vaults, carved decorations, sloping roofs, and an architectural aesthetics blending Eastern and Western elements ^[2].

Historical celebrity culture: represented by Dongpo culture, including poetry, academies, and refined landscape imagery. Tropical ecological culture: featuring native plants, tropical rainforests, volcanic landforms, and sponge city characteristics. Red and folk culture: encompassing the Red Women's Army, Junpo Festival, Gongqi, and Qiong Opera.

These cultural elements can be transformed into landscape symbols, spatial forms, material techniques, plant configurations, and color systems, directly serving landscape architecture design education.

2.2. Curriculum positioning of landscape architecture design for vocational undergraduate programs

The Landscape Architecture Design program in vocational undergraduate education emphasizes the following key aspects: Professional orientation: Targeting positions in design institutes, cultural tourism companies, landscape engineering firms, and urban renewal enterprises. Practical focus: Emphasizing project implementation, material selection, construction coordination, and cost control. Regional relevance: Serving urban-rural development initiatives, rural revitalization efforts, and cultural-tourism integration projects in Hainan Free Trade Port. Comprehensive approach: Integrating five core elements: ecology, culture, aesthetics, functionality, and industry.

2.3. The significant value of integrating Hainan's regional culture into the curriculum

Enhance curriculum quality: Move beyond Western standardized teaching models to establish a distinctive Hainan-based curriculum system. Strengthen cultural confidence: Help students understand local culture and foster awareness of cultural preservation and innovation. Align with employment needs: Enterprises urgently require designers who "understand Hainan, possess practical skills, and possess cultural literacy". Support local development: Provide talent for Hainan's urban renewal, rural revitalization, and park green space development. Develop institutional characteristics: Build differentiated and branded professional strengths in vocational undergraduate education ^[3].

3. Practical challenges in integrating Hainan regional culture into landscape architecture design courses

3.1. Outdated teaching philosophy: Overemphasis on technical skills at the expense of liberal arts education, with severe Westernization

The curriculum predominantly centers on software-aided drafting and standardization theory, while regional culture, local case studies, and vernacular architecture are marginalized. Teaching methods largely emulate European, Japanese, and modern minimalist styles, with insufficient attention to Hainan's indigenous aesthetics and climate adaptability.

In teaching practices, educators often prioritize students' mastery of design software such as CAD, SketchUp, and Lumion, along with the mechanical imparting of national or industry-standard design specifications, viewing these as the "hard currency" essential for rapid job adaptation post-graduation. In contrast, the transmission of regional cultural knowledge, including Hainan's unique volcanic rock culture, the traditions of the Li and Miao ethnic groups, its tropical coastal fishing and farming civilization, and the distinctive architecture of Nanyang-style arcade buildings, is often dismissed as dispensable "soft content", frequently glossed over or entirely overlooked. During the design conceptualization and presentation phases, teaching cases and models predominantly feature Western classical gardens, Japanese karesansui landscapes, or modernist minimalist styles, guiding students to emulate their spatial layouts, symbolic elements, and design techniques. This pedagogical approach leads students to habitually apply foreign stylistic templates in landscape design, with limited consideration given to integrating Hainan's indigenous cultural elements, plant materials, and traditional construction wisdom. Consequently, they struggle to develop a profound understanding or conscious application of adaptive design strategies for shading, ventilation, cooling, and rain protection suited to Hainan's tropical island climate. The resulting designs often lack regional distinctiveness and cultural identity, falling significantly short of the landscape works requiring authentic local cultural characteristics as demanded by the Hainan Free Trade Port initiative ^[4].

3.2. Course content deficiencies: Lack of locally developed teaching materials and case studies

The existing textbook content is universally applicable nationwide but lacks coverage of Hainan culture, native plants, local materials, and regional project cases. The teaching content is disconnected from Hainan's climate, typhoons, heavy rainfall, high temperatures, and native vegetation, resulting in student designs that are "visually appealing but impractical".

Current landscape architecture textbooks predominantly focus on macro-level design principles, universal standards, and classic domestic/international case studies, with scant systematic exploration of Hainan's unique natural and cultural characteristics. For instance, plant configuration chapters typically emphasize temperate tree species common in northern regions or nationally distributed landscaping plants, while rarely addressing Hainan's rich tropical/subtropical flora, including coconut trees, betel palms, bloodroot plants, and dragon blood trees covering their ecological behaviors, ornamental qualities, cultural symbolism, and landscape applications. This superficial understanding hinders students' ability to creatively utilize regionally distinctive vegetation in designs. Regarding material applications, textbooks predominantly feature generic materials like stone and wood, neglecting in-depth analysis of Hainan's native volcanic rocks, coral stones, and bamboo materials, including their processing techniques, construction methods, and cultural significance. Consequently, students often overlook these regional materials favoring standardized alternatives. The scarcity of local project cases is particularly acute, as existing materials primarily originate from culturally rich cities like Beijing, Shanghai, and Suzhou, or renowned international projects from Europe, America, and Japan. Outstanding Hainanese landscape designs, such as the Betel Valley showcasing Li and Miao traditional village layouts, the arcade street renovation blending Southeast Asian culture with coastal aesthetics, and the tropical climate-adapted volcanic crater park design, remain systematically absent from current curricula. This directly results in students struggling to access and reference exemplary local cases during their learning process, hindering them from gaining experience in integrating regional culture with modern design. Due to the disconnect between teaching content and Hainan's unique climate conditions, students often prioritize visual aesthetics over practical functionality and ecological adaptability in their designs. For instance, textbook guidelines on wind-resistant design principles prove inadequate for guiding plant selection

and arrangement in Hainan's severe typhoon-prone environments, leading to frequent tree collapses and facility damage in student-designed gardens. In high-temperature and humidity conditions, insufficient consideration of spatial layout optimization, plant coordination, and water feature design for natural shading and cooling results in outdoor spaces that become unbearably hot in summer, lacking comfort. Frequent heavy rainfall also causes inadequate consideration of native plants' water retention capacity and drainage system design, making gardens prone to waterlogging during rainy seasons. These factors collectively contribute to the widespread phenomenon of "beautiful but impractical" design works that fail to meet Hainan's actual landscape architecture demands.

3.3. Monotonous teaching methods: Predominantly lecture-based with insufficient exploration

The teaching model predominantly follows the "teacher lectures–student copy–drawing submission" approach, lacking cultural research, field investigations, intangible cultural heritage experiences, and project-based learning. Students' understanding of culture remains superficially symbolic, unable to achieve deep cultural interpretation. Practical teaching remains inadequate: disconnected from local industries, internship bases mostly feature generic landscape projects rather than authentic Hainan-specific initiatives such as cultural tourism developments, park renovations, rural revitalization programs, or arcade building upgrades. Students also lack hands-on experience in Li and Miao ethnic landscapes, overseas Chinese heritage sites, coastal ecological conservation, and volcanic rock art creation techniques.

3.4. Unbalanced evaluation system: Overemphasis on visual effects at the expense of cultural significance and practical implementation

The evaluation primarily focuses on visual aesthetics and layout completeness of renderings, with lower emphasis on regional cultural expression, ecological adaptability, local material application, and practical feasibility. This approach fails to encourage students to prioritize cultural integration. Faculty capacity remains inadequate: many instructors lack local research expertise and industry experience, while some long-term campus-based educators demonstrate limited understanding of Hainan's cultural heritage, intangible heritage techniques, local projects, and industry standards. Additionally, the insufficient proportion of dual-qualified teachers hinders the implementation of in-depth localized teaching practices^[5].

4. Overall approach and principles for integrating Hainan regional culture into curriculum

4.1. Overall approach

With professional competence at its core, regional culture as its distinctive feature, and practical implementation as its guiding principle, Hainan cultural elements are systematically integrated throughout the entire curriculum process, from "symbolic cognition—element extraction—translation and design—project practice—implementation evaluation"—forming a closed loop that ensures "culturally grounded, rationally designed, practically feasible, and job-relevant".

4.2. Basic principles

- (1) Regional adaptability principle
Grounded in Hainan's unique climate, topography, flora, and cultural context, we reject mechanical adoption of external models.
- (2) Professional competence principle
Aligned with Hainan's landscape industry job standards, emphasizing practical implementability.
- (3) Practice-oriented approach principle
Integrated learning through real-world project-driven training.
- (4) Cultural authenticity principle
Evolving from superficial symbol replication to authentic cultural expression.

(5) Ecological integration principle

Cultural integration must synergize with tropical ecosystems, sponge city initiatives, and wind disaster mitigation strategies.

5. Specific strategies for integrating Hainan regional culture into landscape architecture design courses in vocational undergraduate programs

5.1. Restructuring of teaching philosophy: Establishing a tripartite concept of “region + culture + profession”

(1) Clarify the course objectives

Shift from “being able to draw diagrams” to “being capable of creating Hainan-specific designs”. Strengthen three key awarenesses: regional cultural awareness, tropical ecological awareness, and practical engineering implementation awareness.

(2) The curriculum focuses on three core dimensions

Deep understanding of regional culture, scientific knowledge of tropical ecosystems, and engineering practice capabilities for professional roles. It guides students not only to master design presentation skills but also to draw inspiration from Hainan’s unique natural and cultural environment. By exploring the lifestyles, values, and ecological wisdom embedded in regional culture, students develop designs that resonate culturally while meeting tropical ecological requirements and industry standards.

This approach cultivates landscape architects who are culturally aware, practice-savvy, and innovative, which effectively transforming skilled professionals into culturally literate, practice-oriented, and creative practitioners. The program adheres to the principle of “culture as the soul, ecology as the foundation, and profession as the core”.

5.2. Curriculum content restructuring: Developing Hainan-localized content modules

The module on Hainan’s regional culture and landscape symbols include analyses of Li and Miao cultures, maritime culture, Nanyang culture, Dongpo culture, and volcanic culture, along with methods for extracting cultural elements and translating them into landscapes. It also covers traditional Hainanian color systems, materials, patterns, and morphological systems^[6].

The Hainan Native Plant and Landscape Design Module showcase applications of indigenous species including coconut palms, areca palms, banyan trees, bougainvillea, fox-tail palms, and flame trees. It features tropical plant configuration with typhoon resilience design, along with landscape creation techniques for tropical rainforests, coastal zones, volcanic environments, and wetlands. The Local Materials and Construction Techniques Module incorporate natural elements such as volcanic rocks, bamboo, vines, thatch, coconut shells, and logs, while incorporating traditional construction methods like arcade-style architecture, boat-shaped houses, and Danjia (traditional boat-dwelling) structural frameworks.

5.3. Innovation in teaching methods: Diverse interactions and deep learning experiences

The field investigation method involves organizing students to visit Li Village Miao settlements, arcade-style old streets, coastal wetlands, and volcanic villages to complete cultural research manuals. The intangible cultural heritage experience method invites inheritors of Li brocade, bamboo and rattan artisans, and volcanic stone craftsmen into classrooms for immersive learning. The element translation training method transforms Li brocade patterns into paving, lighting fixtures, and landscape walls; boat-shaped houses into covered walkways, post stations, and public restrooms; and wave motifs with fishing nets into railings, water features, and sculptures. The project-based learning (PBL) approach utilizes real-world sites in Hainan for community park designs and Li/Miao rural landscape planning, while enhancing campus tropical cultural landscapes and designing coastal greenways^[7].

The scenario simulation method creates virtual design environments, such as bidding sessions for volcanic crater

ecological restoration projects and landscape proposal presentations for coastal resorts, enabling students to demonstrate their design concepts and defend solutions as professional designers while enhancing communication skills and adaptability. The online-offline integration approach utilizes digital platforms to establish a Hainan regional cultural resource repository, incorporating visual materials like Li and Miao ethnic costumes, traditional architecture, and folk customs. Students can independently study online to collect cultural elements, then conduct group discussions and design projects based on field research findings, achieving resource sharing and efficient collaboration.

5.4. Construction of practical teaching system: University-local collaboration and industry-education integration

In-class practice, cultural extraction—sketch—design, proposal—rendering—construction drawing full-process training. On-campus practical training

Establish the “Hainan Local Landscape Exhibition Area” and “Cultural Translation Training Workshop”. Off-campus bases will be jointly established with local landscape companies, design institutes, cultural tourism groups, and rural revitalization demonstration sites in Hainan. Learning through competition. Organize or participate in:

Hainan Rural Revitalization Design Competition, Free Trade Port Landscape Design Competition, and Native Plants and Cultural Landscape Competition.

The school-enterprise dual-mentor system integrates corporate mentors into curriculum instruction and graduation project guidance, bringing real-world project experience into classrooms. Through authentic project practices, students undertake landscape design projects commissioned by local governments and enterprises, including rural micro-updates, cultural enhancement of scenic areas, and community pocket park renovations, enabling them to complete the entire process from conceptual design to on-site construction supervision in real-world scenarios. The internship-employment integration model involves signing internship agreements with partner enterprises, where students gain practical experience through off-campus placements. Outstanding interns may secure direct employment opportunities, achieving seamless alignment between academic learning and career development^[8].

6. Conclusion

Integrating Hainan’s regional culture into the undergraduate landscape architecture design curriculum serves as a crucial approach for curriculum reform, cultural preservation, and employment enhancement, while also representing an inevitable choice for undergraduate programs to serve local needs and foster distinctive development. Through a systematic overhaul encompassing teaching philosophies, course content, instructional methods, practical training, evaluation systems, and faculty teams, current issues such as Westernized, abstract, and disconnected curricula can be effectively addressed, enabling students to genuinely acquire landscape architecture design competencies that embody Hainan’s style, tropical ecology, local materials, and practical applicability.

This teaching model not only enhances the quality of talent cultivation and strengthens students’ professional competitiveness, but also enables young learners to become inheritors, interpreters, and innovators of Hainan’s regional culture. It provides a continuous and stable supply of high-quality technical and skilled talents to support urban-rural development, ecological civilization construction, rural revitalization, and the integrated development of culture and tourism in Hainan Free Trade Port.

Future research can further deepen studies in AI-assisted design, digital rural landscapes, and near-zero carbon landscapes, promoting the deep integration of Hainan’s regional culture with modern technology and vocational education. This will lead to the formation of a replicable and scalable vocational undergraduate landscape architecture education model known as the “Hainan Model”.

Funding

2026 Teaching Reform Project at Hainan Vocational University of Science and Technology (Collaborative Optimization Research on ‘Curriculum-Content-Education’ for Private Vocational Undergraduate Design Programs—Through School-Based Characteristic Practices (Project No.: HKJG2025-40))

Disclosure statement

The author declares no conflict of interest.

References

- [1] Liu C, 2025, Innovative Perspectives on Driving High-Quality Development of Modern Vocational Education through Vocational Education Hub Construction. *Journal of Ningbo Vocational and Technical College*, 29(6): 22–28 + 76.
- [2] General Office of the People’s Government of Hainan Province, 2025, Notice on Several Measures to Promote High-Quality Development of Modern Vocational Education and Serve the Construction of Hainan Free Trade Port. *Hainan Provincial Government Gazette*, 2025(09): 7–14.
- [3] Wang Y, 2025, Contemporary Value and Innovative Practices of Traditional Architectural Culture in Hainan. *China Architecture News*, 2025-02-25(009).
- [4] Yuan B, 2024, Research on Protection and Utilization Strategies for Hainan Arcade Buildings from the Perspective of Cultural Heritage Continuity. *China Architecture News*, 2024-11-12(011).
- [5] Li H, 2024, Exploring the Contemporary Value of Arcade Architecture from the Perspective of Cultural Confidence: A Case Study of Hainan. *Global Human Geography*, 2024(18): 109–111.
- [6] Huang Y, Ye B, 2025, Rural Landscape Design Strategies Based on Hainan’s Regional Culture under the Context of Rural Revitalization. *Rural Science Experiment*, 2025(16): 34–36.
- [7] Yuan B, Zhang Y, 2024, Research on Rural Landscape Design in Hainan Region from a Regional Cultural Perspective. *China Architecture News*, 2024-11-26(012).
- [8] Yang Y, Wang X, 2022, Post-use Evaluation of Cultural Tourism-Oriented Rural Landscapes (POE): A Case Study of Zhongliao Village, Sanya. *Modern Horticulture*, 45(1): 28–30.

Publisher’s note

Whoice Publishing remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.