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Contemporary Architecture in Southeast Asia: A Case Study of Spine Architects in Myanmar

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Abstract

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Southeast Asia's contemporary architecture has been evolving alongside the region's recent developments. However, the contexts of some Southeast Asian countries, for instance, Myanmar, were often overlooked in the analyses of the region's contemporary architecture. By examining the works of one of the country's leading local firms, Spine Architects, this paper investigates how Myanmar's contemporary architecture was shaped between 2000 and 2010. The paper analyses Spine Architect's selected works together with relevant literature reviews and a relation with political, economic, and social issues of Myanmar within the selected time frame. The study reveals that a leading local architect firm's contemporary design considerations can flourish alongside its peers at the international level, and keep pace with regional contemporary architecture developments, even under the challenges and limitations of a nation. The paper also fills a gap in contemporary Asian architecture discourse and shows the architectural profession's simultaneous intermingling with and detachment from political, economic, and social contexts.

Keywords: Contemporary Architecture; Southeast Asia; Myanmar; Spine Architects.

1. Introduction

Southeast Asia has been developing at a substantial rate since the beginning of the 21st century. Together with that development, the arts and lifestyles of Southeast Asians have been shifting to more contemporary ways. Architecture in the region has also been shifting to contemporary interpretations.

1.1 Contemporary Architecture in the Southeast Asia Context

Southeast Asia is a region with many different religions, languages, and histories. However, the region is unified by its climate and landscape, specifically the monsoon belt. Historically, architecture here was divided into two types: temporary domestic buildings made of light materials like bamboo and wood, and permanent religious and royal buildings made of masonry (Shannon, 2014). Today, contemporary architecture in Southeast Asia is a "syncretic search" to balance local traditions, the colonial past, and the needs of a globalized world (Peter G. Rowe, 2022).

A major architectural discourse in the region is the movement known as Tropical Regionalism, which began in the 1950s (Shannon, 2014). This movement emerged as a reaction against "orthodox modernism" and the International Style, which were criticized for ignoring local climate and cultural contexts. Instead, architects sought to create an "architecture of resistance" which critically integrates and reinterprets inherited forms, climatic knowledge, local materials, and symbolic references through contemporary spatial, material, and expressive languages (Peter G. Rowe, 2022).

Tropical Regionalism developed from the post-independence debates of the 1950s into more urban and technological forms during the late 1980s and 1990s, when key figures like Ken Yeang and Tay Kheng Soon were instrumental in this discourse. Yeang developed the "bioclimatic skyscraper," which adapts the global skyscraper form using climatic devices such as wind shields, sun-shading pergolas, and vertical vegetation. His Menara Mesiniaga building in Malaysia is a prime example of "eco-infrastructure" that uses sky courts to reduce heat gain. Similarly, Tay Kheng Soon proposed the "Tropical City Concept," which advocates for densified urban areas that use high-level shading and vertical greenery to absorb heat (Shannon, 2014). Today, this trend continues as "green building" becomes a common goal in almost all contemporary projects in the region (Peter G. Rowe, 2022).

Responsiveness to the tropical climate is perhaps the most defining characteristic of contemporary Southeast Asian architecture. Historically, "tropicality" was a Western trope defining the region as a hot, humid "other" (Beynon, 2017). However, modern practitioners have reclaimed this concept, viewing tropicality as an adaptive synonym for sustainability (Beynon, 2017; Lin, 2023).

Singapore has emerged as a global leader in biophilic design, integrating nature into tall buildings to enhance human well-being (Thampanichwat et al., 2026). Projects such as CapitaGreen and the Parkroyal Collection Pickering utilize lush vegetation, natural colors, and biomorphic forms to reduce urban heat and improve environmental quality (Filipowicz et al., 2016; Thampanichwat et al., 2026). These high-rise structures reflect the metropolitan character of Singapore while excel in implementing innovative ecological solutions like renewable energy and facade systems that promote health and social contact (Filipowicz et al., 2016).

In Thailand, recent proposals for sustainable railway stations emphasize thermal comfort in the tropical environment. Designers often utilize 3D curved and gable roofs to manage heat while expressing local cultural elements (Tetiranont et al., 2024). However, there remains a recognized deficiency in user-centered design for inclusiveness, highlighting a need for further integration of "design-for-all" principles in public infrastructure (Tetiranont et al., 2024).

The contemporary architectural discourse in the region is heavily influenced by the transition from colonial dependency to national self-assertion. (Lin, 2023) argues that the "postcoloniality of architecture" in urban maritime Asia, including Singapore and Taiwan, represents a new *épistémè* that transcends Western-centric theoretical frameworks. This condition is characterized by "antinomy"—a state where architectural forms are simultaneously "Western but Asian" or "exotic but native" (Lin, 2023).

In Singapore, this hybridity is expressed through the slang descriptor "Rojak," a term for a diverse mix that reflects the city-state's operative modernity and cultural-political hybridity (Lin, 2022). He identifies three slang-based indicators of Singaporean architectural Orientalism: "Ang Mo" (suggesting elitism), "Ah Beng" (shallow nativism), and "Rojak" (diluted domination). A prime example is the Bishan Public Library, which utilizes a Corbusian modernist framework while reinterpreting the concept of a "tree house" to create a sense of native subjectivity built upon external intervention (Lin, 2022). Similarly, the Gardens by the Bay serves as a national icon that transforms the Western "Garden City" ideal into a tropical "City in a Garden," reifying the state's governmentality through an "unnatural" yet sustainable intervention (Lin, 2022).

In Brunei Darussalam, architectural development is inseparable from the state philosophy of Melayu Islam Beraja (MIB). This ideology mandates that the built environment institutionalize Islam, preserve Malay cultural values, and honor the monarchy (Lopes & Hasnan, 2021). Contemporary mosque architecture in Brunei acts as a tool for constructing a collective identity, amalgamating historical Malay forms with international conventions to navigate the tensions between tradition and modernism (Lopes & Hasnan, 2021).

Regarding political aspects, many Southeast Asian nations, since the postwar period when they gained independence, have used architecture to build a national identity. This often meant putting traditional symbols on modern structures. This continued for decades afterwards, too. For example, the Petronas Towers in Malaysia, completed in 1998, use Islamic geometric patterns on a high-tech steel and glass frame to geometric façade designs (Shannon, 2014). Similarly, the roof of the National Library of Malaysia (1992) makes a symbolic reference to traditional Malay headgear (Beynon, 2010). On the other hand, Sumet Jumsai's former Bank of Asia building (1983), in Bangkok, known as the "Robot Building", critiques mainstream and formal architectural trends, both the declining international style modernism and up-and-coming historicist postmodernism, by reflecting capitalist popular culture and Thai values like *sanuk* (fun) in both functionalist and symbolic ways of architectural design (Beynon, 2010). (Wijenayake & Fusingpaiboon, 2025) also discussed how contemporary high-rise architecture can resist global homogenization when it critically integrates local identity, tropical responsiveness, urban context, and cultural references rather than relying on superficial symbolism. Through three case studies on contemporary high-rise buildings, including The MET (2005), designed by WOHA, Central Embassy (2017), designed by AL_A, and King Power Maha Nakhon (2019), designed by Büro Ole Scheeren, showing different levels of success in this challenge. Thailand has also sought to define "Thainess" in contemporary architecture. (Horayangkura, 2016) identifies five major categories of Thai architectural fundamentals: Abstract characteristics: Lightness/buoyancy, transparency, and shadiness (the "Rom Ruen" quality), Non-abstract characteristics: The use of local materials and formal patterns, Aesthetics: Curvilinear delineation and formal multiplicity, Symbolism: Symbolic reinvention based on cosmological models (e.g., Traiphum), Thainess: The joyful and playful nature of the Thai spirit. In Northern Thailand, the revitalization of Tha Phae Road in Chiang Mai showcases Contemporary Lanna architecture, which blends traditional Lanna gable roofs and intricate woodcarvings with Modern, Western, and Chinese influences (Laohaviraphap & Mahaek, 2023). This integration ensures that historic shophouses remain relevant to modern commercial needs while preserving the region's distinctive cultural essence (Laohaviraphap & Mahaek, 2023). Contemporary architecture in Southeast Asia increasingly rejects modernist box-shaped abstractions in favor of symbolic forms that reflect national identity (Safarik et al., 2018). The Bitexco Financial Tower in Vietnam exemplifies this by adopting the shape of a lotus bud, a traditional symbol representing purity and ethnic spirit (Safarik et al., 2018). This shift toward innovative, curved designs is enabled by advanced structural technologies like outrigger-braced systems, which allow buildings to reach new heights while addressing the changing needs and aspirations of a dynamic, developing society (Safarik et al., 2018).

Southeast Asian architecture negotiates local identity against globalization through critical regionalism. It interprets indigenous logic via spatial organization, ecological innovation, and hybridity. This reinterpretation preserves collective memory while adapting vernacular forms to modern urban functions, ensuring cultural sustainability (Muh. Akshar, 2025). Critical Regionalism serves as a vital method for resisting the cultural homogenization of globalization. In Indonesia, architects like Eko Prawoto act as "midwives" of meaning, negotiating between international "art worlds" and local community realities (Macrae, 2013). Prawoto's work avoids fixed styles, instead using architecture as a process of reflection rooted in nature and local culture rather than state-driven nationalism (Macrae, 2013). Contemporary Southeast Asian architecture, particularly in Malaysia, often faces identity crises due to globalization. Vernacular and modern styles can be bridged through a framework of tangible and intangible cultural elements to restore national character (Mohd Hilmee & Afizi Kosman, 2023).

Contemporary Indonesian mosques also embody critical regionalism by moving beyond historical sentimentality. (Primanizar, 2024) identifies projects like the Al-Irsyad Mosque and Baitus Shobur Mosque that emphasize tactile experiences over iconic symbolism. By utilizing local materials such as terracotta and concrete roster, these mosques create a dialogue between modern technology and regional identity while responding to tropical climatic conditions through natural ventilation and light (Primanizar, 2024). This approach views "Nusantara" architecture not as a static historical form but as a global library of values that can be recontextualized in modern construction (Primanizar, 2024). Engagement with vernacular values follows three distinct levels of transformation: retained (keeping the original spirit), evolved (adapting to new contexts), and reinterpreted (abstracting spirit with new design language) (Vu et al., 2026). In Vietnam, projects like the Cam Thanh Community House reinterpreted local craftsmanship and climatic adaptation (ventilation/shading) within a modern structural framework (Vu et al., 2026). This recognizes architecture as an "organic entity" that must be rooted in its land to achieve sustainable growth (Vu et al., 2026).

Sustainability in the region often involves bridging traditional wisdom with innovative technologies. In Malaysia, there is a push to re-establish traditional stilt structures to mitigate flood risks and reduce environmental impact on topographies (Mari et al., 2022). While challenges like cost and a lack of skilled labor persist, architects suggest using reclaimed timber and hybridized recycled materials as viable sustainable solutions (Mari et al., 2022). This synergy is also evident in the implementation of Traditional Malay design values in modern residential architecture, where principles of structural honesty, simplicity, and interaction with nature are adapted to contemporary lifestyles (Hosseini et al., 2016).

The above examples show that identity is not just about old symbols. (Beynon, 2004) coined the term "newly authentic" architecture, where local communities in Southeast Asia reinvent their traditions for modern use. In Indonesia, the Toraja people put their traditional saddleback roofs on modern concrete houses and even on Christian church steeples. Similarly, the construction of a traditional Bahnar communal house (rong) in a museum in Hanoi demonstrates cultural dislocation and the transformation of a communal building into an ethnographic object. These examples indicate how traditions can be translated, displaced, and re-authorized through contemporary social conditions, tourism, religion, and community agency. These hybrid structures are considered "newly authentic" because they represent how traditions are transformed by current social conditions. Postcolonial critics argue that "authenticity" can be produced through the agency of local people who reinvent their own traditions (Beynon, 2004). Architecture plays a critical role in promoting cultural sustainability by facilitating intergenerational dialogue (Putra & Wirawibawa, 2023). In Buleleng-Bali, contemporary public buildings adapt indigenous architectural ornaments to meet the demands of urbanization. By reapplying features like brick, sandstone, and traditional Balinese decorations to modern facades, architects ensure that new structures remain representations of previous cultural icons (Putra & Wirawibawa, 2023).

However, the pursuit of cultural identity faces challenges. In Vietnam, contemporary religious architecture often suffers from "mass-copying" from the internet, leading to designs that lack liturgical depth or aesthetic consideration (Thi Vu & Nguyen, 2021). Despite this, projects like the Kadon Parish Church demonstrate that "good architecture is timeless," successfully hybridizing local forms (such as the "native home" concept) with universal Christian missions through a deep understanding of the *genius loci* (Thi Vu & Nguyen, 2021).

The development of contemporary architecture is not evenly distributed across the region. An analysis of the Indonesian Architects Week (IAW) 2024 exhibition reveals that private-sector projects are heavily concentrated in Java and Bali, leaving regions like Papua and Maluku under-represented (Nadizti & Hanan, 2025). In contrast, development in Kalimantan is primarily driven by the government's plan to relocate the capital to Nusantara, highlighting how infrastructure and political agendas shape the built environment (Nadizti & Hanan, 2025).

Furthermore, (Beynon, 2017) explores "alternative tropicalities" in the highlands of Southeast Asia (e.g., Batak and Karo regions). In these upland environments, where the climate approximates temperate conditions, architecture offers a less homogenous reading of tropicality. Contemporary religious buildings in these areas often hybridize local symbolic forms, such as the Batak communal house (*jabu*), with Western ecclesiastical imagery, creating an "oppositional modernity" that prioritizes local ethnic distinction over pan-regional climatic responses (Beynon, 2017).

Drawing from (Peter G. Rowe, 2022) and (Shannon, 2014), five major contextual forces are organized in Southeast Asia's contemporary architecture context: 1) luxury high-rises for the global market, 2) "Green Performance" and Experimentation with local materials, 3) a focus on social justice, 4) Strategic use of technology, adapting to local capacities and aspirations, and 5) A dynamic interplay between past traditions and contemporary needs.

1. **Luxury High-Rises:** Cities like Singapore and Kuala Lumpur continue to build high-end residential and commercial towers to compete as global cities. Firms like WOHA experiment with high-rise typologies like the Moulmein Rise apartments, which use "monsoon windows" to provide natural ventilation during heavy rains (Shannon, 2014).

2. **"Green Performance" and Experimentation with local materials:** A primary trend is the profound recognition of natural environmental conditions, which has led to a persistent focus on creating places that are lasting, useful, and comfortable through "green building" and passive climatic features. There is a new interest in using local materials like bamboo in modern ways. Vo Trong Nghia in Vietnam creates complex structures like the Water and Wind Cafe, which is built from smoked bamboo woven with traditional techniques without using nails (Shannon, 2014).

3. **Social Justice:** In Indonesia, Eko Prawoto works with villagers to build earthquake-resistant houses using local skills and a system of mutual help called *gotong royong*. Similarly, Andra Matin designs simple, low-cost housing for workers that fits into the existing landscape (Shannon, 2014). These projects show that sustainability is also about an "indigenous principle for thinking and action" to help the community (Beynon, 2010).

4. There is a growing acknowledgment of appropriate technology levels, where architects use a mix of technologies depending on economic and programmatic needs. This often results in a preference for ready-made, lower-tech niches that are subordinated to a deeper cultural sense of building form (Peter G. Rowe, 2022).

5. Southeast Asian architecture continuously engages with its historical roots while adapting to contemporary needs. Identity of Southeast Asian architecture is not static but a dynamic process of drawing from deep historical and cultural

wellsprings, applying traditional wisdom and forms in a modern context, and adapting them to the evolving environmental and technological landscape (Peter G. Rowe, 2022).

1.2 Research Gaps and Significance

Existing literature reveals that Contemporary architecture in Southeast Asia is a mix of environmental smarts, modern technology, and local pride. While cities are changing fast and some traditions are disappearing, architects are finding new ways to make buildings that are both modern and culturally meaningful. By focusing on climate, local materials, and the life of the street, the region is creating its own unique style of modern architecture.

As one of the Southeast Asian countries, Myanmar has never failed to catch contemporary architecture movements of Southeast Asia. Since the early 21st century, many modern architects in Myanmar have been trying to transform the country's architectural shape into contemporary interpretations. However, due to the country's former isolation, this transformation is yet largely unexplored. This overlook causes a lack of architectural knowledge in Southeast Asia's contemporary architecture discourse. Current literature also tends to prioritize climatic, identity, and cultural aspects in addressing contemporary architecture of Southeast Asia. Studies on practical experiences of how a firm approached the design challenges of contemporary issues in a developing nation are often missing.

1.3 Research Questions and Objectives

So, the primary research question here is "How did a local leading firm in Myanmar make design considerations such as form, space, and material choices in relation to its contemporary issues, and social and environmental conditions between 2000 and 2010?" Which design considerations were impacted by these contexts? And another secondary question related to current knowledge is "How different or similar were these design considerations to Southeast Asia's regional contemporary architecture?" By focusing on one of the leading contemporary local firms, this study aims to present a detailed and grounded case study of how innovative architectural strategies respond to the social, economic, and environmental conditions of a developing Southeast Asian context. In doing so, it highlights a frequently overlooked regional perspective, contributing to a more inclusive understanding of contemporary architecture and addressing a critical gap in the broader architectural discourse within Asia.

2. Materials and Methods

2.1 Study Design and Setting

This study employs a single case study strategy to study Myanmar's contemporary architecture in relation to contemporary issues and social and environmental conditions between 2000 and 2010, using a combined method: Archival Research: Reviewing Myanmar's political and economic contexts between 2000 and 2010, and Artifactual Documentations: Conducting formal and spatial analyses of the built projects.

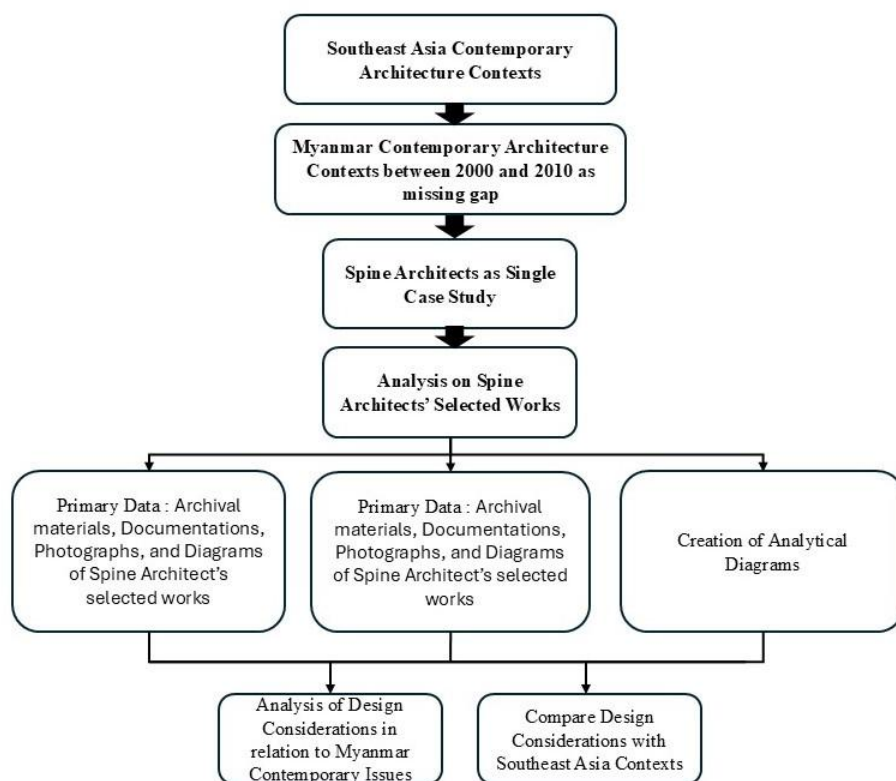


Figure 1. Structure of the Study (Developed by the Authors).

2.2 Case Study Selection

The paper selects Spine Architects as a single case study based on two rationales. The first rationale is that this case study can be a revelatory case study. The author's relationship with Spine Architects' former and current professionals gives a unique access to observe internal design processes at Spine Architects that were previously inaccessible, revealing the systematic documentation and analysis to answer the research questions.

The second rationale is a longitudinal case study. The selected case study will serve as a longitudinal case because it will examine the same office at multiple points in time (2000 to 2010) to observe how adaptive strategies changed.

2.3 Selection of Spine Architects' Works

The paper uses a purposive sampling method to select among Spine Architects' dozens of projects within a decade. The projects were specifically selected based on two criteria that link to the research question. The priority is to prioritize projects that provide sufficient access to data, such as internal blueprints and project memos. The second priority is to select diverse project typologies to be able to analyze the different design considerations for different requirements of the projects. Finally, the paper tries to choose the specific works that are most likely to illuminate research questions to reveal the links between the architect's design considerations and the national and regional contexts. The four projects are shown in Figure 2 and listed in built year order as follows:

1. Amata Resorts & Spa (Resort), 2005
2. MG Residence (Residential), 2008
3. MDG Headquarters (Office), 2009
4. Cyclone Shelter (Infrastructure), 2010



Figure 2. (Left) Amata Resorts & Spa, (Center Left) MG Residence, (Center Right) MDG Headquarters, (Right) Cyclone Shelter (Source: Spine Architects).

2.4 Data Collection

The research contains two main parts of information collection:

1. Primary data: The archival materials, documentation, photographs, and diagrams of Spine Architect's selected works will be gathered and examined according to relevant buildings.
2. Secondary data: Sources from media, company records, and journals.

2.5 Analytical Framework

The study analyzes Spine Architects' contemporary design considerations, such as form, space, and material choices of their selected projects between 2000 and 2010. Their archival drawings, such as plans, elevations, and section drawings of the selected works, are redrawn to produce analytical diagrams to be able to analyze and match the patterns occurring during the study's selected time frames. Through examining the firm's documents, including the design intents, the design decisions, and considerations relating to Myanmar's political and economic contexts, the information is also examined and recorded. Literature reviews of Myanmar's political and economic contexts between 2000 and 2010 also enhance the understanding of the reasons and considerations.

3. Results

3.1 Myanmar contemporary architecture contexts between 2000 and 2010 through the lens of Spine Architects

3.1.1 Introduction

Founded in 2003, Spine Architects is widely recognized as a pioneering force in Myanmar's contemporary design movement. The firm was established by husband-and-wife duo Stephen Zawmoe Shwe and Amelie Chai, who met while studying at Columbia University's Graduate School of Architecture, Planning, and Preservation (Wu, 2015).

Stephen, a native of Myanmar, and Amelie, a US-licensed architect with a background from Harvard and Columbia, brought nearly a decade of professional experience from New York City to Yangon (Sagar, 2018).

3.1.2 Amata Resorts & Spa

Owner: Amata Hotel Group

Building Type: Resort

Location: Ngapali, Myanmar

Completed: 2005

AMATA Resort & Spa is located at the south end of Ngapali Beach, widely regarded as Myanmar's finest beach.

Comprising over 5.5 acres, the resort has 100 guest rooms, a beachfront restaurant and bar, swimming pool, and spa. The site is deeper than it is wide, with less than 500 feet of beach frontage.

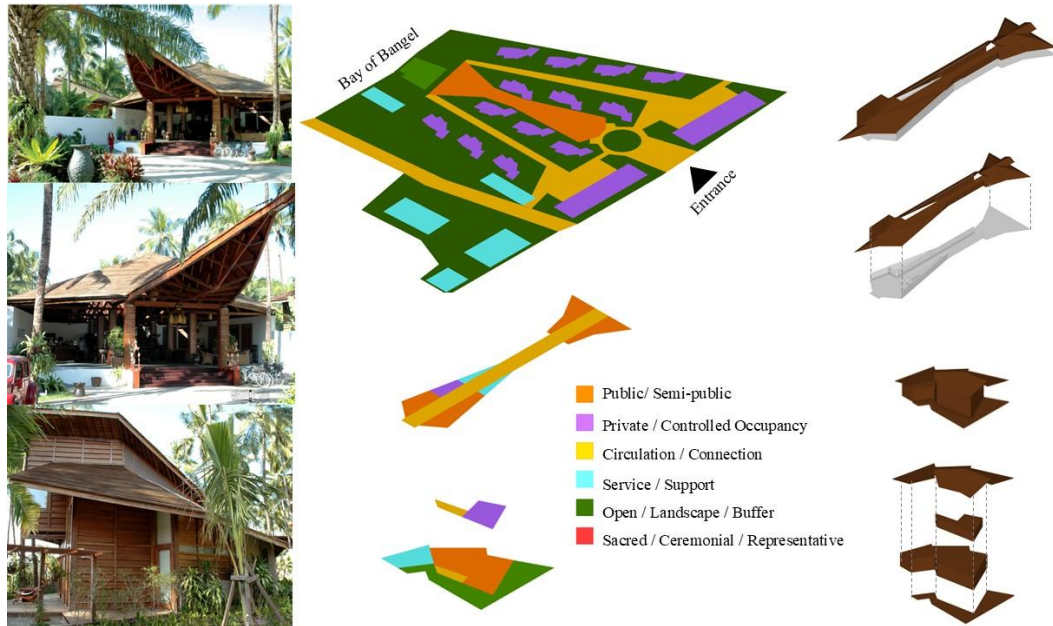


Figure 3. (Left) Exterior views of Amata Resort (Source: Spine Architects) (Middle) 3D zoning analytical diagrams (Right) Axonometric 3d massing analytical diagram (Source: Author).

3.1.2.1 Spatial Analysis

Amata Resort & Spa is organized through a linear site strategy that connects the arrival area, main building, swimming pool, and sea-view axis. The main building functions as the public and semi-public interface of the resort, containing reception, waiting, restaurant, bar, and transition spaces. The guest bungalows are distributed along the landscaped site as private units, creating a dispersed village-like organization rather than a single hotel block. The swimming pool, gardens, verandas, and decks operate as open-buffer spaces that mediate between private accommodation and the coastal landscape (Figure 3). The architect described about their spatial design considerations in their design intent document as: “Our strategy was threefold: (1) to create a site design that would allow all units to have sea views, (2) to develop a modern bungalow prototype with reference to local traditions, and (3) to use the main building as the primary axis to tie together the various functions of the site.”



Figure 4. (Upper Left) The reinterpretation of Burmese vernacular huts (Source: Spine Architects) (Lower Left) Reinterpreted local huts roofs at Amata Resort (Right) Interior view of Open atrium at main building (Source: Spine Architects).

At the unit scale, the bungalow combines private sleeping space, service/wet areas, circulation, and semi-outdoor decking. The decking space is significant because it is not merely circulation; it works as a climatic and experiential threshold between the private guest room and the tropical landscape. This two-scale organization—site-scale village layout and unit-scale veranda threshold—allows the resort to produce privacy, sea-view access, and sensory immersion within a constrained beachfront site.

3.1.2.2 Formal Analysis

The formal strategy of Amata Resort is based on the reinterpretation of Burmese rural hut forms rather than direct imitation. The main building's steep roof creates an open atrium-like volume that supports stack ventilation. The steep thatched roofs enlarge the scale of vernacular roof forms to suit resort hospitality, while also responding to monsoon rain, shade, and natural ventilation. Repeated across the site, the roofs create a recognizable tropical roofscape and a curated sense of local identity for high-end tourism. The timber and thatch material expression supports this identity, but its role is not simply nostalgic. It becomes both an environmental device and a visual signifier of regional experience. (Figure 3, 4)

3.1.2.3 Contextual Finding

Amata Resort shows how Spine Architects translated local form and tropical environmental knowledge into a luxury hospitality context. Its village-like layout and thatched roofscape do not simply preserve tradition; they reassemble vernacular references as a contemporary resort experience. In Myanmar's politically isolated and economically limited context, this project served a narrow high-end tourism market while using climate-responsive and locally legible architectural elements to distinguish itself from generic global resort models.

3.1.3 MG Residence

Owner: U Maung Gyi

Building Type: Residential

Location: Mandalay, Myanmar

Completed: 2008

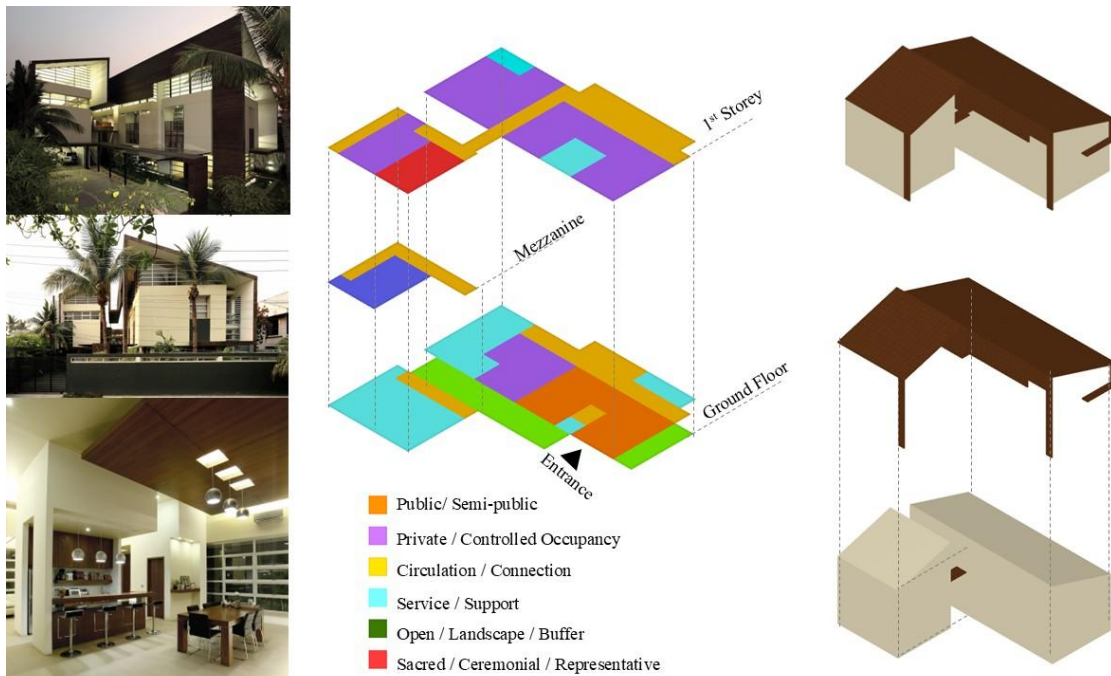


Figure 5. (Upper Left) Exterior view of MG Residence (Lower Left) European style kitchen (Source: Spine Architects) (Middle) 3D zoning analytical diagram (Right) Axonometric 3d massing analytical diagram (Source: Author).

3.1.3.1 Spatial Analysis

MG Residence is organized through a layered domestic hierarchy. The ground floor contains public and semi-public domestic spaces such as living, dining, and social kitchen areas. These spaces are connected visually and spatially to garden and buffer zones, allowing the interior to open toward the landscape while remaining enclosed within the private compound. The upper level contains private family spaces, including bedrooms and family areas, while the shrine room introduces a sacred and cultural layer into the domestic plan. (Figure 5)

Service and support spaces, including kitchen, wet areas, and maid room, are separated from the family-private zones but remain integrated into the overall household organization. This separation reveals the spatial logic of an elite residence: public hosting, family privacy, religious practice, domestic service, and climatic buffer zones are simultaneously accommodated within one house. (Figure 5)

3.1.3.2 Formal Analysis

The formal strategy of MG Residence is centered on the transformation of the Mandalay gabled roof. The architect described in their design intent as "The concept behind MG Residence is to use a variation of the gabled Mandalay roof in a contemporary manner. Here, the roof and wall area a continuous surface faced in the same finish materials, a folding ribbon which helps to protect the glass façade from the strong Mandalay sun." Rather than applying the roof as a decorative symbol, Spine Architects fold and extend it into a roof-wall envelope that shades the glass façade and frames the domestic volumes. The roof, therefore, performs two roles. Climatically, it protects the interior from Mandalay's strong sun. Culturally, it translates a familiar local roof type into a contemporary architectural expression. (Figure 5)

3.1.3.3 Contextual Finding

MG Residence demonstrates how elite domestic modernity in Myanmar was negotiated through spatial hierarchy and cultural legitimation. The house accommodates globalized lifestyle expectations, such as open living spaces, a European kitchen, and high-end domestic comfort, while also maintaining culturally specific spaces such as the shrine room. The project's local reinterpretation is therefore not limited to roof form. It also appears in the way domestic life, religious practice, service hierarchy, and climatic protection are spatially organized.

3.1.4 MDG Headquarters

Owner: Myanmar Distribution Group Co., Ltd.

Building Type: Office

Location: Yangon, Myanmar

Completed: 2009

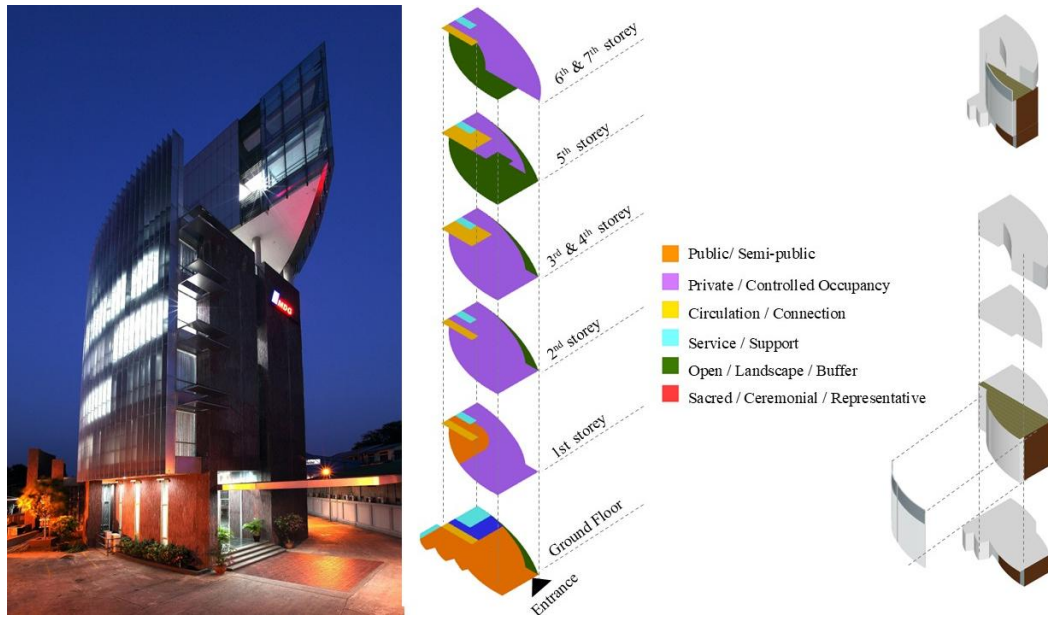


Figure 6. (Left) Exterior view of MDG Headquarters at night (Source: Spine Architects) (Centre) 3D zoning analytical diagram (Right) Axonometric 3d massing analytical diagram (Source: Author).

The MDG Headquarters is a seven-story private office building designed for a local major distribution company in Myanmar. Situated within a dense urban area of Yangon, the largest city in Myanmar, the project explores vertical spatial organization as a response to land efficiency and growing urban density. Its distinctive form demonstrates a balance between functional requirements and contemporary architectural expression. (Figure 6)

3.1.4.1 Spatial Analysis

MDG Headquarters is organized as a vertical hierarchy. The ground floor and lower levels form a semi-public interface, accommodating arrival, access, and controlled public-facing functions. The middle levels contain repeated private office floors, while the upper levels are more representative and executive in character. Circulation and service spaces are compactly arranged through the vertical core, allowing the narrow urban footprint to function efficiently. (Figure 6)

This vertical organization translates corporate hierarchy into spatial form. Public interface is kept at the base, workspaces are stacked in the body of the building, and executive or representative spaces are placed at the top. The building, therefore, uses vertical zoning not only for efficiency but also to express institutional order. (Figure 6)

3.1.4.2 Formal Analysis

The formal strategy of MDG Headquarters is based on the interaction between a curved vertical mass, a projecting upper volume, and a layered façade system. The curved mass gives the building a distinct urban presence, while the projecting upper form marks the executive or representative level. The façade screen mediates daylight, privacy, and heat while giving the building a contemporary corporate image. (Figure 6)

Unlike Amata Resort or MG Residence, MDG Headquarters does not strongly reinterpret vernacular form. Its design is closer to corporate modernity, using façade articulation, verticality, and sculptural massing to communicate reliability and institutional identity. (Figure 6)

3.1.4.3 Contextual Finding

MDG Headquarters reveals a different aspect of Spine Architects' work. In the context of Myanmar's political isolation and limited international economic connections, the building constructs an image of corporate confidence and global-facing professionalism. Its contemporary façade and vertical form do not directly address political conditions, but they indirectly respond to a business environment where corporate visibility, reliability, and controlled access were important.

This project shows that not all Spine Architects' works rely equally on local reinterpretation; in MDG Headquarters, corporate representation and environmental façade mediation are more dominant.

3.1.5 Cyclone Shelter

Owner: Unknown Donor

Building Type: Infrastructure

Location: Dedaye, Myanmar

Completed: 2009

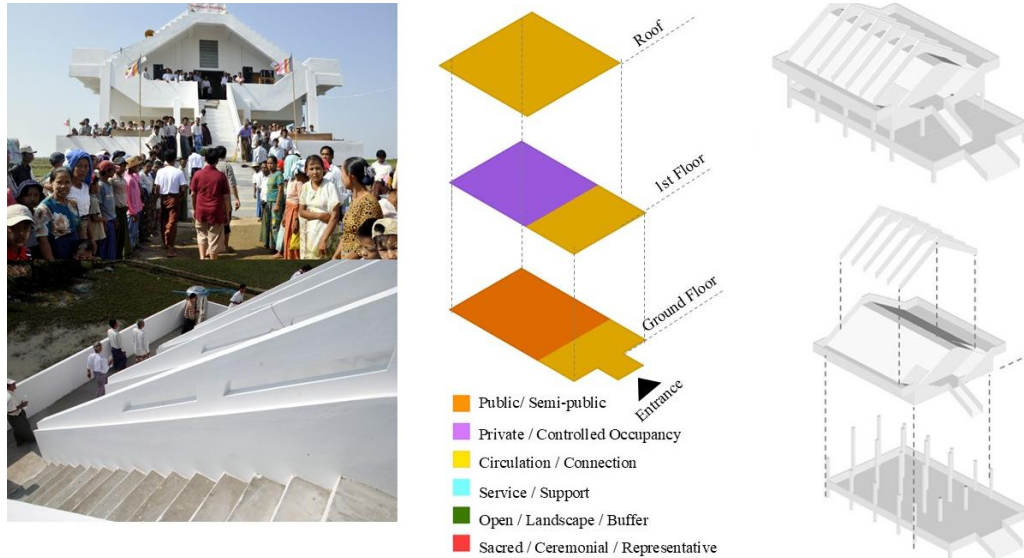


Figure 7. (Upper Left) The villagers preparing a ceremony at the cyclone shelter (Lower Left) People accessing the shelter's roof (Middle) 3D zoning analytical diagram (Right) Axonometric 3d massing analytical diagram (Source: Author).

The Cyclone Shelter in Dedaye, Myanmar, is a critical disaster-relief structure built in the aftermath of Cyclone Nargis (2008). Located in the Ayeyarwady Delta, it serves as a life-saving refuge during storms while functioning as a community asset in normal times.

3.1.5.1 Spatial Analysis

The Cyclone Shelter is organized through a dual-use spatial system. In ordinary conditions, the open ground level functions as a community space for gathering, meetings, ceremonies, and daily activities. During storms or flooding, the elevated main floor becomes a protected refuge level. In extreme conditions, the roof and stair-roof surface become an additional emergency platform. The building, therefore, creates a vertical hierarchy of safety: ground-level community use, elevated refuge, and roof-level emergency capacity. (Figure 7)

Circulation is a critical part of this spatial organization. The wide external stair is not merely a route; it is designed for collective movement during emergencies and works as an everyday social element. The project's spatial organization, therefore, transforms disaster infrastructure into a familiar community building.

3.1.5.2 Formal Analysis

The formal strategy of the Cyclone Shelter is based on the integration of the platform, stair, roof, and refuge. The raised platform protects the enclosed level from floodwater. The stairs extend into the roof form, turning the roof into an inhabitable surface. The stepped roof profile increases emergency capacity and helps break down the scale of the building. Rather than appearing as a defensive bunker, the shelter becomes an accessible social structure. (Figure 7)

3.1.5.3 Contextual Finding

The Cyclone Shelter translates environmental risk into social infrastructure. Built after Cyclone Nargis, it responds not only to climate and disaster but also to the weakness of state infrastructure and the need for community-based resilience. Its architectural significance lies in the way it makes emergency refuge part of everyday village life. The project, therefore, expands Spine Architects' design considerations beyond elite clients and corporate commissions, showing how contemporary architecture can support vulnerable communities under fragile political and institutional conditions.

4. Discussion

The analysis of the design considerations of the four projects examined above reveals the relations with Myanmar's contemporary issues between 2000 and 2010. Different design considerations for different building typologies by Spine Architects were analyzed and summarized in the following discussion in 4.1.

Moreover, this analysis can also be based on the broader Southeast Asia contemporary architecture contexts. Their alignment or divergence from broader Southeast Asian contexts is summarized in Table 1, with further detailed discussions to follow.

4.1 Spine Architect's design considerations in relation to Myanmar's contemporary issues between 2000 and 2010

Between 2000 and 2010, Myanmar was ruled by a military junta known as the State Peace and Development Council (SPDC), led by Senior General Than Shwe. The political context during this time was defined by the suppression of democratic movements and the long house arrest of Daw Aung San Suu Kyi (Win, 2019).

There was an indirect effect on Myanmar's economy due to political factors during this decade. Economically, Myanmar was one of the poorest nations in Asia during this decade. In 2003, the United States imposed the harshest economic sanctions in the world on Myanmar due to human rights violations (Myint-U, 2019). These sanctions isolated the country from the global banking system and forced the regime to rely on China for investment (Win, 2019). The economy was described as "crony capitalism," where wealth and business opportunities were mostly given to a few people with military connections. Furthermore, illicit industries like the production of heroin and the mining of jade became major parts of the economy, though the profits rarely helped the public (Myint-U, 2019).

In 2008, the military government approved a new constitution during the chaos of Cyclone Nargis (Win, 2019). However, the selected works show that these conditions did not affect all projects in the same direct way. For privately funded projects, political and economic contexts appeared indirectly through client type, market limitation, and the need to project modernity and confidence. For socially oriented infrastructure, the national context appeared more directly through disaster vulnerability and institutional weakness.

Amata Resorts & Spa on Ngapali beach catered to the limited high-end tourism market in a challenging environment for high-end hospitality development by prioritizing cultural authenticity and sensory immersion. Spine Architects utilized a dispersed "village" layout to offer guests privacy and a direct connection to the coastal landscape. Myanmar's national power grid was characterized by extreme unreliability and frequent outages (Win, 2019). Although utilization of stack effects seems to apply sustainable design strategies in a tropical environment, it also highlights an attempt to maintain guest comfort in an environment with an unreliable power grid. The resort's soaring, thatched conical roofs established a unique regional identity, distinguishing it from globalized competitors.

The MG Residence reflects the contemporary lifestyle of Myanmar's elite through sophisticated spatial zoning and high-end amenities. To align with the client's status, the spatial layout incorporates a European Kitchen for modern social hosting alongside a separate domestic kitchen, a luxury rare in the region's economic climate. The design features expansive double-height volumes and dedicated staff quarters, ensuring the scale of a globalized modern residence. By integrating a prominent Shrine room with multiple master suites, the architecture successfully balances elite modernism with rooted cultural traditions.

Both Amata Resort and MG Residence were shaped by the opportunities of elite and high-end clients. Their design quality was possible precisely because they served privileged markets within an economically unequal country. Amata translated local material and roof references into a high-end tourism environment, while MG Residence translated local domestic and religious references into elite residential modernity. These projects show that contemporary design could develop in Myanmar despite political and economic constraints, but often through selective access to wealth and private patronage. MDG Headquarters served as corporate diplomacy. Its modernist, monolithic facade signaled global reliability to international partners despite political isolation. Spatially, the design enforces a strict hierarchy: executive offices are elevated on top floors, while the ground floor addresses security and internal training needs, which are critical in an unstable economy. The Cyclone Shelter differs from the other three projects because it was shaped by social vulnerability rather than elite consumption or corporate identity. Its raised platform, refuge levels, and inhabited roof show a practical response to environmental risk. At the same time, its everyday community function shows that disaster infrastructure in Myanmar could not be separated from local social networks and daily communal life.

Based on the results from the studies on Spine Architects' four different key projects, we can see some unique considerations and recurring patterns in spatial and formal designs. Regardless of the size and typology of the projects, Spine Architects tried to keep their contemporary design considerations while also addressing the contemporary issues of the country from 2000 to 2010.

The four projects examined above reveal Spine Architect's consistent design consideration of space and form, which mainly centered on environmental awareness and reinterpretation of local design elements. One of the most common formal design patterns found in these four projects is the use of an angular striking roof shape. From the early 2000s Resort project to the office headquarters project built at the end of the decade, we can see those dynamic angular roofs using different materials such as local thatch, timber, and even modern materials like glazing. The architecture of Myanmar between 2000 and 2010, as seen through the projects of Spine Architects, serves as a built record of a nation in a state of profound transition.

4.2 Spine Architect's design considerations in the broader Southeast Asia's contemporary architecture contexts

The architectural output of Spine Architects reflects a sophisticated negotiation between Myanmar's specific constraints and the broader shifts in Southeast Asian contemporary architecture. As summarized in Table 1, their selected works relate to Southeast Asian contemporary architectural contexts in different ways rather than through one fixed design tendency. The contextual drivers in Table 1 were identified from recurring concerns in Southeast Asian contemporary architecture literature. Shannon's discussion highlights the role of climate and tradition, hybrid modernities, and critics of absent urbanism. Beynon's work argued for produced vs salvaged authenticity, discussed cultural sustainability as dialogical coexistence, informality of the street in urban contexts, and hybridity and post-colonial negotiation, and

Rowe and Fu frame Southeast Asian modern architecture as a process of bringing inherited forms, materials, and environmental knowledge into contemporary conditions (Beynon, 2010; Peter G. Rowe, 2022; Shannon, 2014). To analyze Spine Architect's design considerations and position in broader Southeast Asia contexts, these ideas were summarized and reorganized into four key analytical drivers in Southeast Asia contemporary architecture: Elite Global-City Modernity, Climatic and environmental adaptation, Addressing the needs of disadvantaged communities, and Translation of local identities, materials, and technologies.

Amata Resort & Spa strongly aligns with the drivers of climatic and environmental adaptation, translation of local forms and materials, and technology. Its open-air main hall, steep thatched roofs, decking spaces, pool, and landscape buffers respond to the tropical climate and coastal resort experience. However, the project does not simply copy vernacular huts. Instead, it enlarges and repeats local roof references as a contemporary roofscape for high-end tropical hospitality. In this sense, Amata transforms local and climatic references into a curated hospitality identity.

MG Residence also aligns with climatic adaptation and local-form translation, but within an elite domestic luxury context. Its folded Mandalay gabled roof functions as both climatic protection and cultural reference, while its spatial organization separates public hosting, private family areas, service support, shrine space, and garden buffers. Therefore, the project's local reinterpretation is not limited to roof form; it also appears in the organization of domestic life, religious practice, service hierarchy, and climatic comfort.

MDG Headquarters aligns more strongly with corporate modernity and façade-based environmental mediation than with vernacular reinterpretation. Its vertical zoning organizes semi-public interface, office floors, and representative upper spaces, while its façade system supports daylight, privacy, heat control, and corporate image. Compared with Amata and MG Residence, MDG Headquarters shows that Spine Architects' work did not rely on one repeated local-form strategy. Here, contemporary architectural expression is directed more toward elite domestic modernity and global-facing corporate identity.

Cyclone Shelter shows the strongest alignment with "addressing the needs of disadvantaged communities". Its raised platform, refuge levels, wide stairs, and roof refuge respond directly to flood and cyclone risk, while its open ground level supports everyday community use. Unlike the private and corporate projects, the shelter translates environmental danger and weak institutional support into social infrastructure. It therefore expands Spine Architects' design considerations beyond elite, touristic, and corporate commissions.

Overall, Table 1 shows that Spine Architects' works were not uniformly centered on environmental awareness or local reinterpretation. These concerns shifted according to project type and social context: Amata transformed local and climatic references into high-end hospitality; MG Residence combined climatic protection with elite domestic luxury; MDG Headquarters prioritized corporate visibility and façade mediation; and Cyclone Shelter converted environmental risks into community resilience. This comparison positions Spine Architects within Southeast Asian contemporary architecture while showing how Myanmar's specific conditions shaped distinct design responses.

Table 1: Comparison of Spine Architect's design considerations from selected projects with Southeast Asia's contemporary architecture contexts.

Projects	Key contextual forces shaping contemporary Southeast Asian architecture			
	Elite Global-City Modernity	Climatic and environmental adaptation	Addressing the needs of disadvantaged communities	Translation of local identities, materials, and technology
Amata Hotels & Spas	○ High-end tourism identity	● Open-air atrium, monsoon roof	— Not central	● Thatched hut roof and village layout reinterpreted
MG Residence	○ Elite domestic modernity	● Folded roof-wall shading	— Not central	● Mandalay gabled roof reinterpreted
MDG Headquarters	● Corporate image and global-facing reliability	○ Façade screen, daylight, and heat control	— Not central	— Not central
Cyclone Shelter	— Not central	● Raised refuge, flood/cyclone response	● Post-Nargis disaster design	○ Local meaning through familiar communal use

● = Primary alignment ○ = Secondary / partial alignment — = not central

5. Conclusions

Between 2000 and 2010, Spine Architects shaped design considerations around Myanmar's political isolation, weak infrastructure, and economic scarcity by balancing elite modern aspirations, cultural identity, climatic comfort, and community resilience. Rather than applying modern design considerations directly, they adapted those to unstable power systems, limited markets, religious-social networks, and fragile institutional conditions. Moreover, their design considerations aligned with contemporary Southeast Asian architectural contexts by translating local forms and materials, climatic performance, and social responsibility into contemporary forms. Across selected projects, they balanced

contemporary spatial needs with cultural reinterpretation, humanitarian function, material locality, and regional identity, leading to keeping pace with broader Southeast Asia contexts.

As one of the leading local firms in Myanmar, Spine Architects' design considerations addressed Myanmar's isolation, weak infrastructure, and economic limits while aligning with broader Southeast Asian concerns. Their works adapted modern aspirations through climatic comfort, local materials, social resilience, and historical reinterpretation, balancing elite lifestyles, humanitarian needs, and culturally grounded regional identity.

Further Research Recommendations

As a methodological recommendation, conducting semi-structured interviews with Spine Architects' founder and former leading design architects can support a better understanding of design intentions, processes, and contextual challenges. As a recommendation for topics, future research may explore theoretical frameworks such as critical regionalism and tropical modernism to interpret Spine Architects' design responses within Myanmar's cultural, climatic, and regional contexts.

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