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Architectural exchanges within the construction of the new Silk Roads: Transcultural dynamics in Gwadar, Pakistan, and Djibouti

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Abstract

Amid the shifting dynamics of global urbanization, China's Belt and Road Initiative (BRI) has emerged as a major force reshaping transnational architectural exchanges and development paradigms. This study explores the transcultural architectural exchanges facilitated by BRI through an analysis of projects in Gwadar, Pakistan, and Djibouti. By examining the Pakistan–China Friendship Hospital, the Pakistan–China Friendship Vocational Training Institute, and the National Library and Archive of Djibouti, this article reveals how architectural practices under the BRI negotiate between Chinese modern technological capabilities and local cultural contexts. Using the theoretical frameworks of transcultural dynamics, enriched by the concepts of "contact zones" and "third space," this study reveals the dynamic interactions and cultural exchanges among several factors in shaping these architectural endeavors. The research highlights the complexities of integrating global design strategies with local traditions and the impact of these hybrid architectural forms on local communities and urban environments. The findings emphasize the need for a more in-depth investigation into the dynamics of designing and constructing architectural artifacts and the underlying rationale behind adopting different transcultural schemes. Ultimately, this study contributes to the discourse on global architectural mobilities, offering insights into how architecture serves as a diplomatic tool and a platform for cultural exchange in different regions shaped by processes of urban development.

Keywords: Transculturalism; Contact zones; Belt and road initiative; China; Architecture; Collaboration

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1. Introduction

The field of architectural design is undergoing a profound transformation in response to the rapid complexification of global landscapes and urban environments. In this context, architecture firms in transnational settings inevitably encounter transcultural challenges rooted in differing building practices, cultural norms, historical legacies,

geographical settings, and socio-economic conditions. Urban scholar Ponzini (2023) points out that transnational exchanges in the construction of architecture and the built environment are not unique to our era. Transnational urbanization dynamics and architectural practices have previously been and are destined to undergo continuous evolution in the foreseeable future. However, historically, our perspective has predominantly framed transnational movements of architectural practices and discourses as unilateral flows, often characterized as emanating from the West to the East or from the Global North to the Global South. This dichotomous lens has significantly influenced architectural discourse and its impact on various contexts globally. Meanwhile, contemporary studies in political and economic studies have recognized a novel condition of "globality," wherein nations and entities engage in competitive interactions on a global scale. This era has been described as a "flat world" or a "spiked world" (Pieterse, 2018). Amid this dynamic shift, China's Belt and Road Initiative (BRI) stands as a paramount geoeconomic force catalyzing these transformations (Wiig & Silver, 2019). This strategy not only expanded China's economic reach but also brought about a new approach to development aid. Architectural exports became a crucial diplomatic tool, enhancing China's soft power while simultaneously promoting trade and economic development (Ding & Xue, 2015; Gonzalez-Vicente, 2011; King, 2013). These efforts aimed to position China as a global leader and partner for countries in need (Ding & Xue, 2015; Zhao & Jing, 2019).

While several studies have explored the transnational movements of architecture practices and their outcomes on local communities and built landscapes, much of this literature has focused on the impact of Western architectural models in non-Western contexts; fewer studies have critically analyzed how, in contemporary settings, Chinese architectural firms manage the negotiation of international design principles in foreign territories (Akcan, 2012; Botz-Bornstein, 2016; Volait & Nasr, 2023). This study addresses this research gap by investigating how Chinese architectural exports interact with local built environments under the framework of the BRI. Additionally, this article examines how architecture functions as an instrument of transcultural diplomacy by balancing global design expertise with local contingencies. By looking at the practices and dynamics of Chinese architecture and construction firms operating in a foreign aid context, this study seeks to elucidate how architectural models are negotiated and reinterpreted across cultural boundaries under the BRI framework. It also aims to understand the sociocultural tensions that emerge in integrating imported architectural models within local urban environments and the broader implications of China's architectural collaborations on local built environments and urban identities.

Hence, this study analyzed three case studies of transnational architecture endeavors undertaken in Gwadar, Pakistan, and Djibouti, two critical nodes along the BRI's Maritime Silk Road. These case studies reveal the processes of architectural diffusion, translation, and adaptation, shedding light on the broader impact of China's infrastructural and cultural influence on local architecture and urbanism. By examining these significant locations and engaging with the theory of transculturalism, supported by the concept of contact zones, this study unveils how power dynamics, diplomatic narratives, and cross-cultural negotiations shape architectural forms.

2. Literature review: Transnational influences of architectural models between importation and adaptation

Transnational architectural exchange has long been a subject of scholarly inquiry, particularly debating the complex interactions between global influences and local adaptations. Studies on colonial architecture have extensively demonstrated how foreign architectural models were historically imposed on local contexts, often imposing Western architectural models and generating hybridized local reinterpretations with varying degrees of success (King, 2013; Stanek, 2012). Diffusionist theories (Rapoport, 1969) further highlight how, during the 20th century, architectural ideas spread across regions, contributing to a more incredibly homogenized global urban landscape. The spread of modernist technologies, together with the circulation of images and representations of world-class cities, played a significant role in shaping expectations and aspirations for urban development (Appadurai, 1996), reinforcing standardization patterns in contemporary built environments (Ponzini, 2023). Beyond the theoretical discourse on architectural diffusion and its adaptation to local cultures, contemporary urban development literature has debated the economic and cultural implications of globalized architecture. The narrative of the "Bilbao effect" epitomizes the belief that iconic architecture can catalyze urban revitalization, as exemplified by the Guggenheim Museum Bilbao, designed by Frank Gehry (McNeill, 2000; Ponzini, 2010). In this regard, one of the primary drivers of architectural globalization is the increasing competition among cities to attract international investments. Skyscraper clusters and central business districts, housing multinational corporate headquarters and maximizing real estate value, have come to symbolize economic power (Sklair, 2017). These developments often replicate international aesthetic codes,

reinforcing a homogenized urban experience. This is clear in the development of successful cities in the Global East, such as Singapore and Shanghai. However, critical scholars caution against overly deterministic views of architectural spectacle, highlighting that such projects may exacerbate socio-spatial inequalities and fail to deliver promised economic benefits (Harvey, 1989; Zukin, 1995). Urban homogenization, while not a novel phenomenon, has accelerated in speed, modes of diffusion, and spatial reach, warranting further investigation into its contemporary manifestations.

Despite the homogenizing tendencies of globalization, architectural theorists have emphasized the importance of regional specificity in design practices by displaying a few selected and acknowledged case studies. Historical examples illustrate these dynamics, such as adapting colonial architecture to indigenous materials and climates (King, 1976) and reinterpreting modernist principles across different geographical contexts (Curtis, 1996). Frampton's (1983) advocacy for critical regionalism argues for architectural responses that resist global uniformity by emphasizing localized adaptations.

However, recent research suggests that contemporary transnational architecture, particularly within development aid projects, follows a more intricate trajectory. Rather than mere unilateral imposition, imported designs undergo processes of hybridization shaped by local socio-political and environmental contexts (Akcan, 2014; Avermaete, 2015). Furthermore, Bhabha's (1994) concept of cultural hybridity underscores the merging of indigenous and foreign architectural influences, complicating the traditional binary between imposed and vernacular forms.

The BRI presents a distinctive model of transnational architectural engagement, wherein Chinese firms actively reshape urban landscapes across participating nations. Unlike Western-led development projects, BRI architectural exports are often framed within the discourse of cooperation and shared benefits (Gonzalez-Vicente, 2011; Zhao & Jing, 2019). Nevertheless, critics argue that these projects prioritize Chinese geopolitical and economic interests over local needs, resulting in tensions between aesthetic modernization and cultural heritage preservation (Roskam, 2016). Scholars examining BRI urbanism in Africa (Brautigam, 2009) and the resurgence of Islamic motifs in European architecture (Said, 1978) further demonstrate how transnational architectural models evolve through complex negotiations of power, identity, and cultural specificity. By investigating these dynamics, this study contributes to a more nuanced understanding of architectural transculturalism and its implications for future urban development.

3. Transcultural dynamics in the BRI architecture construction: A framework for inquiry

This article adopts the concept of transcultural dynamics as the primary framework for analyzing architectural exchanges in the context of China's BRI. Coined by South American scholars Fernando Coronil, Fernando Ortiz, and Harriet de Onís in 1940, "transculturalism" goes beyond the mere acquisition of another culture, which is often implied by the term "acculturation." They posit that transculturalism encompasses a transitional process involving the loss or uprooting of one's previous culture, leading to the emergence of new cultural phenomena (Coronil *et al.*, 1995). This understanding serves to replace inadequate terms such as "cultural exchanges," "diffusion," and "migration," positioning transculturalism as a more nuanced framework for understanding complex cultural interactions in the contemporary world. In this context, the notion of transcultural dynamics is essential in understanding how global and local architectural practices are negotiated and synthesized in the Global South, moving beyond simple notions of unidirectional influence, such as export versus import or center versus periphery (Volait & Nasr, 2023). Recent scholarly efforts, such as the *OASE* journal's issue titled "Crossing Boundaries," have already explored transcultural practices in architecture and urbanism, highlighting the contributions of several architects and planners who operate as transcultural intermediaries in these regions (Avermaete, 2015). In this evolving landscape, Botz-Bornstein's work, *Transcultural Architecture: The Limits and Opportunities of Critical Regionalism*, goes beyond the concept of critical regionalism, a term mainly associated with Western philosophy, asserting that the idea of transculturalism better displays the amalgamation of cultures through both critical and pragmatic activities. He argues that while transculturalism can thrive without explicit critical input, there are circumstances where a thoughtful engagement with both central and peripheral elements is essential.

Through this framework, architectural projects developed under the BRI have to be conceived more than mere exports from China; they embody complex transcultural design processes through interactions among factors from different cultures. Such complex social dynamics can thus be more thoroughly understood through new concepts, such as contact zones and third spaces, where both donor and recipient cultural actors converge and interact to create a new architectural landscape. In these spaces, the influences of each culture can sometimes dominate, with the donor culture eclipsing the receiving culture or vice versa. The conceptual lens of the contact zone was initially espoused

by the renowned scholar Mary Louise Pratt (1991). This concept serves as a pivotal framework for understanding the dynamics of cross-cultural interactions and has gained traction in various disciplines (Clifford, 1997), including architecture. Defined as social spaces where cultures intersect, clash, and negotiate—often within asymmetrical power relations—contact zones illuminate the complexities of transcultural processes. Pratt (1991) emphasizes that these zones transcend cultural boundaries, highlighting the interactions, collaborations, and conflicts that arise in architectural exchanges. In the context of the BRI, contact zones emerge as critical sites for analyzing how architectural projects foster cooperation between China and its partner countries, revealing both the potential for dialogue and the risk of cultural hegemony. Pratt's initial discussions on contact zones, as articulated in her 1991 article "Arts of the Contact Zone" and later in her book *Imperial Eyes*, illustrate the fluid and interactive nature of cultural exchanges. She offers the example of Guaman Poma's letter to King Philip III of Spain, where the author appropriates and adapts elements of both Andean and Spanish cultures to express his aspirations. This exemplifies the notion that contact zones are not merely sites of cultural domination but dynamic spaces where various elements interact and influence one another. Pratt argues that understanding these exchanges necessitates a recognition of the underlying power dynamics and the resulting transformations, which she encapsulates within the broader phenomenon of transculturation (Pratt, 2007). Some scholars have applied Pratt's ideas to architecture, finding that contact zones reveal not only the exchanges of knowledge but also the tensions and conflicts that can arise from these interactions, ultimately contributing to a more nuanced understanding of global architectural histories (Avermaete & Nuijsink, 2021). Architectural historians, such as Tom Avermaete, have employed the concept of contact zones to analyze the complexities of knowledge transfers during the Cold War, framing them as meeting points for diverse architectural practices. He noted that these zones facilitate the exchange of ideas, allowing for the emergence of architectural forms that are not merely imitations of Western models but innovative interpretations rooted in local contexts. This perspective challenges traditional notions of modernism as a unidirectional flow of ideas and technologies, advocating for recognizing the unique characteristics arising from cross-cultural dialogues (Avermaete, 2015). Moreover, Pratt's assertion that contact zones do not always yield harmonious interactions underscores the potential for conflict as a catalyst for creative engagement (Pratt, 1991).

One of the primary criticisms of development aid, particularly in the context of initiatives like the BRI, is that donor countries often leverage it to pursue their own political and economic objectives while simultaneously enhancing their soft power. Critics argue that such an approach can lead to dependency in recipient countries and may prioritize the donor's interests over the genuine needs and development goals of the local populations. As a result, the aid has to be perceived as a strategic tool rather than an altruistic endeavor to foster mutual growth and cooperation (Alexander, 2020; Faye & Niehaus, 2012). China's architectural exports before the BRI were heavily influenced by the Soviet and Japan's development and construction aid model (Roskam, 2016; Vieira, 2019). Such projects, branded as "architecture gifts" or "friendship centers," were mainly delivered as "complete packages" without input from the recipient countries (Roskam, 2016). While this model risks undermining local identities and hindering the economic development of certain regions, it simultaneously addresses these concerns by incorporating local materials, labor, and technical expertise into the decision-making processes. As architectural exchanges under the BRI evolve, the concept of contact zones offers a methodological tool to explore the complexities of these interactions, illustrating how divergent cultural narratives can coexist, compete, and ultimately inform new architectural identities.

4. Transcultural dynamics in practice: The cases of Gwadar and Djibouti

As a global infrastructure and investment strategy designed to enhance connectivity across Asia, Europe, and Africa, the BRI is developed through two main geographical routes: the New Silk Road Economic Belt and the Maritime Silk Road (Figure 1). A key corridor within the New Silk Road Economic Belt is the China–Pakistan Economic Corridor (CPEC), linking Kashgar in China to Gwadar in Pakistan CPEC's US$62 billion investment spans transport, digital infrastructure, and energy pipelines, aiming to stimulate trade and industrial development (Butt & Butt, 2015). Similarly, Djibouti—a crucial maritime hub—has received major Chinese investments to upgrade port facilities, roads, and railways, reinforcing China's strategic foothold in the region (World Bank, 2018).

Gwadar and Djibouti, both strategically important port cities under the BRI, face a range of challenges as they undergo transformative development in their urban environments. Each of these cities is rich in history and possesses a unique urban identity, prompting critical discussions on how to integrate modern architectural designs with the architectural integrity of their historic town centers. In Gwadar, often touted as the BRI's flagship project, there is an urgent need to determine appropriate construction technologies that can withstand local climatic conditions while being economically

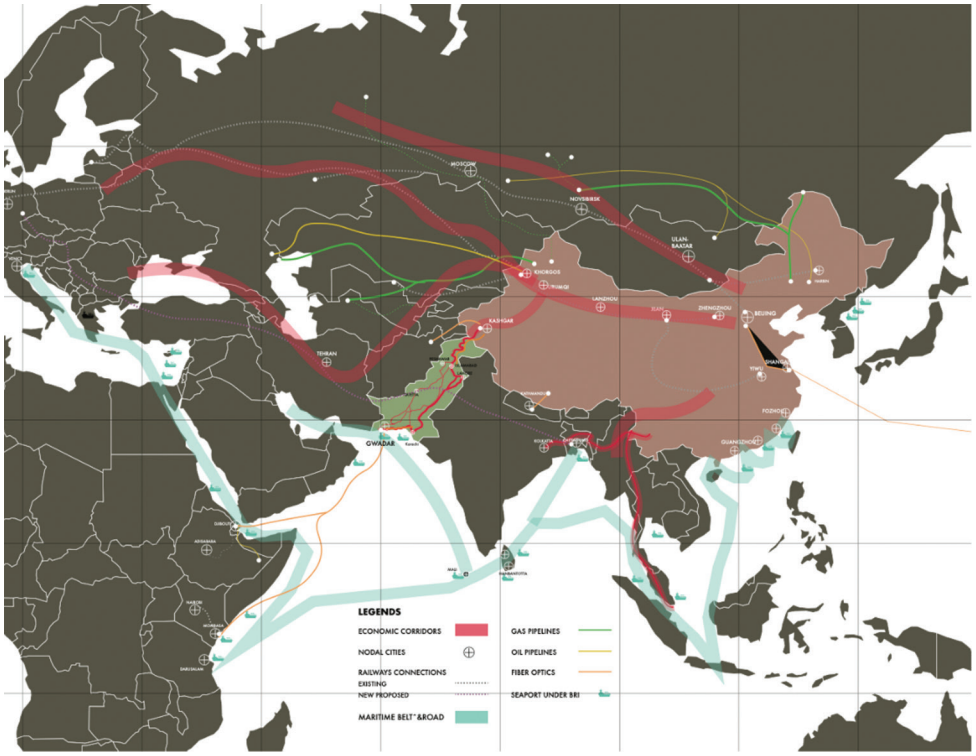

Figure 1. China–Pakistan Economic Corridor, a network of infrastructure spaces. Data extracted from www.merics.org.
Source: Map by Mercator Institute for China Studies (MERICS). Image used with permission from MERICS, Copyright © 2025, MERICS.
Abbreviation: BRI: Belt and Road Initiative.

viable. In Djibouti, the need exists for symbolic architectural outcomes that enrich communities' involvement and appropriation. Despite their distinct characteristics, both cities share similar geographical and cultural contexts, making their developmental experiences highly relevant and instructive for other BRI projects. Gwadar and Djibouti represent interesting case studies for the exploration of emerging transcultural architectural practices, where Chinese firms and local stakeholders collaborate to merge tradition with global urban narratives.

4.1. Architectural hybrids between tradition and technical innovation in the making of the Pakistan–China Friendship Hospital

The Gwadar Port, situated along the New Silk Road, serves as a strategic maritime hub in Pakistan's coastal region (Figure 2). Gwadar has garnered national and international attention following its integration into the BRI. This initiative, propelled by China's geopolitical ambitions, has positioned Gwadar as a key player in global trade dynamics, enhancing its significance within regional and international contexts.

The port's development extends beyond geopolitics to encompass various architectural projects that are either completed or underway under the BRI framework. These projects, financially and technically supported by the Chinese government, are designed to bolster the port's infrastructure and connectivity.

The architectural endeavors in Gwadar reflect a blend of local cultural influences and Chinese design principles, illustrating a unique transcultural dialogue. This interaction indicates broader trends in contemporary architecture, where hybridization facilitates the emergence of innovative spaces that resonate with both the indigenous context and global aspirations.

The development of Gwadar Port has prompted the Government of Pakistan to construct a state-of-the-art hospital, the Gwadar Friendship Hospital, on 68 acres. Phase I is completed, featuring one of six medical blocks with 50 beds, while Phase II aims to expand the capacity to 300 beds through funding and technical support from the Chinese government. Significant milestones include a Letter of Exchange signed in April 2018 and a groundbreaking ceremony in December 2020. The project is managed by the Gwadar Development Authority, with the Chinese government covering all related construction costs.

The Pakistan–China Friendship Hospital (PCF) epitomizes the interplay of local interpretation and

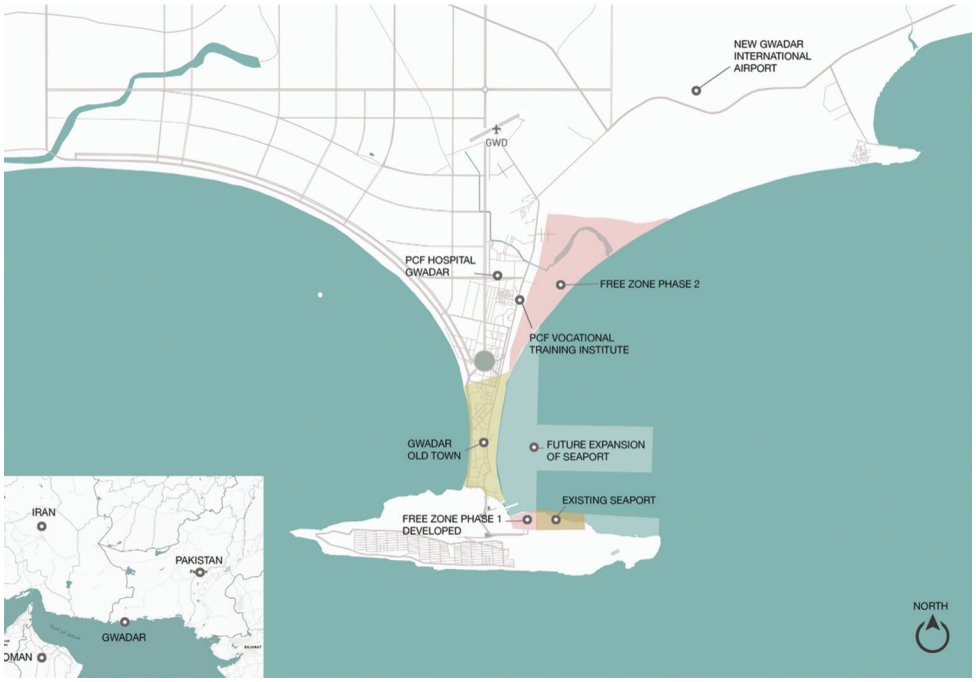

Figure 2. Gwadar Free Zone & Port and other architecture project locations in Gwadar
Source: Map by the authors.

modern ambitions through transcultural dialogues between Pakistani and Chinese architectural practices. This collaborative project is spearheaded by Arcplus Group PLC and Shanghai Xian Dai Architecture, Engineering & Consulting Co. Ltd (ECADI), both of which bring a wealth of experience in international projects. ECADI, a large-scale state-owned design institute in Shanghai, has a history of navigating foreign aid projects, such as the Cottoned Sports Complex in Benin and the International Conference Centre in Cairo. These projects illustrate the institute's adeptness at merging functional design with local cultural narratives, a foundational strategy for the PCF hospital's conceptual framework.

The importance of transcultural dialogue was evident from the outset of the PCF project, particularly during the feasibility study conducted by the China International Engineering Company. Chief engineer Syed Mohammad of the Gwadar Development Authority stated that while their team assisted the Chinese team during the feasibility report process, the Chinese team did not share the final report with them.[1] Initial challenges arose concerning the transparency of the process, as the feasibility report was not shared with Pakistani stakeholders, revealing gaps in communication and collaboration. This highlighted the need for an inclusive approach that values local insights while fostering trust between the two nations. Recognizing these dynamics, the subsequent engagement of Arcplus Group, a leading architecture firm with expertise in working in development aid contexts, was critical for establishing a more solid partnership aimed at understanding and integrating local cultural, environmental, and architectural nuances.

The Arcplus team initiated an extensive field study in Gwadar involving a multidisciplinary group of experts. This inclusive approach emphasized the significance of transcultural dialogue, as it allowed for the intersection of diverse perspectives. The team engaged with local stakeholders, including healthcare professionals, community members, and local technical staff, to gather insights about vernacular architecture, local climate, and cultural practices. By exploring how traditional designs maximize ventilation and utilize local materials, Arcplus began to frame a design strategy that incorporates Gwadar's unique identity.[2]

As the project progressed, the initial design proposals (Figure 3) generated significant discussion within the

[1] Syed Muhammad. "Design Process of Pakistan China Friendship Hospital." Interviewed by Sohrab Ahmed Marri. Audio recording, September 10, 2020. Project Director of PCF hospital from Gwadar Development Authority (Pakistan side). This was the third of three consecutive interviews, the first conducted in January 2019, the second in August 2019.

[2] Syad Muhammad, PCF hospital, interviewed by Sohrab Ahmed Marri, audio recording, January 3, 2019.

Pakistani technical group, emphasizing the role of transcultural dialogues in shaping the project's direction. Concerns were raised regarding the design's alignment with Gwadar's hot and humid climate, which prompted the technical team to advocate for modifications that reflect local needs and cultural practices. This collaborative critique process exemplified the essence of transcultural dialogue. Pakistani experts articulated the importance of wider corridors to accommodate family support systems, privacy requirements rooted in cultural norms, and an exterior design that would resonate with local aesthetics. The emphasis on privacy and community in Pakistani culture underscored the necessity for a design that respects these values while maintaining functional efficacy.

The design discussions culminated in a constructive exchange between Arcplus and the Pakistani technical team. The iterative dialogue facilitated a deeper understanding of local expectations, leading to refined design proposals that balanced modern healthcare functionalities with cultural sensitivity. For instance, incorporating traditional elements, such as enhanced privacy features and appropriate materials that address the local climate, demonstrated how the Chinese designers adapted their initial vision to reflect Pakistani stakeholders' insights (Figure 4). This dialogue not only enriched the design process but also fostered a sense of ownership among local stakeholders, which is essential for the project's long-term success.

Another significant milestone in the transcultural dialogue occurred when Arcplus invited Pakistani stakeholders to Shanghai to showcase their previously designed state-of-the-art hospitals (Figure 5). This visit provided Pakistani experts with firsthand exposure to the integration of modern healthcare technologies within the context of Chinese architectural practices.[3] Through this experience, participants engaged in meaningful discussions about the adaptability of such technologies to Gwadar's unique conditions. This exchange of ideas exemplified how transcultural dialogs can bridge gaps in understanding, leading to innovative solutions that resonate with both local identities and contemporary global standards.

Ultimately, the final design of the PCF hospital represents a synthesis of local insights and modern healthcare paradigms underpinned by the principles of a transcultural dialogue. The hospital stands as an example of the collaborative efforts of Pakistani and Chinese stakeholders in the context of a contact zone where cross-cultural knowledge and ideas intertwine with resolute determination, the architectural cultures of both nations

[3] Syad Muhammad, PCF hospital, interviewed by Sohrab Ahmed Marri, audio recording, January 3, 2019.

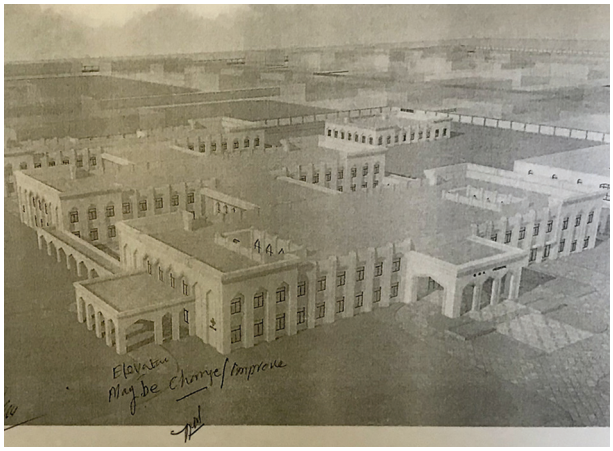

Figure 3. The first design proposal for Pakistan–China Friendship Hospital in Gwadar. It is an official document with countersignatures from both parties.
Source: Gwadar Development Authority office (GDA). Image used with permission from GDA, Copyright © 2025, GDA.

Figure 4. Final design proposal for Pakistan–China Friendship Hospital in Gwadar
Source: Photo extracted from the Gwadar Development Authority (GDA) office. Image used with permission from GDA, Copyright © 2025, GDA.

Figure 5. Arcplus group designers presenting the Pakistan–China Friendship Hospital design proposal to the Gwadar Development Authority director
Source: Photo extracted from the Gwadar Development Authority (GDA) office. Image used with permission from GDA, Copyright © 2025, GDA.

congregate, converse, and coalesce (Pratt, 1991). This architectural endeavor illustrates how active engagement and shared knowledge can yield innovative solutions that include local identities while embracing global standards, thereby fostering deeper ties between Pakistan and China.

4.2. Construction challenges and conflict zones within the process of designing the Pakistan–China Friendship Vocational and Training Institute

The Pakistan–China Friendship Vocational Training Institute (PCFVTI) was conceived in response to the development of Gwadar Port, with the goal of transforming the local workforce into a skilled labor pool to meet the employment demands of the port city. Initiated in 2010 under Prime Minister Syed Yousuf Raza Gilani's leadership, the project sought to uplift the underdeveloped regions of Balochistan by equipping locals with modern technical skills. However, various challenges, including funding shortages and political changes, stalled progress until the advent of the CPEC, which revived the project. Under this framework, the Gwadar Port Authority sponsored the PCFVTI, while the Ministry of Port and Shipping supervised it. A preliminary design phase (PC-1) was completed in 2016, followed by the approval of Chinese financial and technical support. A feasibility study by the China International Engineering Company was conducted in early 2017, leading to formal agreements that emphasize human resource development as essential for the port city's long-term growth, allowing locals to engage in the management of the deep seaport and related industries while enhancing their socio-economic prospects (Pakistan–China Technical and Vocational Institute at Gwadar, 2019).

The development of the PCFVTI in Gwadar exemplifies the complex interplay of transcultural dialogues, highlighting the importance of understanding local contexts while integrating global architectural practices. Following the agreement between Pakistan and China for the establishment of the PCFVTI, a dedicated research team from China arrived in Gwadar to conduct an in-depth onsite study, marking a significant step in the project's progress. The project manager from the Pakistani side noted the team's commitment, stating, "The research team of ECADI Shanghai group arrived in Gwadar and stayed for 3 months and did a comprehensive study of local conditions."[4] This comprehensive research encompassed critical aspects such as climate data, local building codes, and cultural lifestyles, thus laying the groundwork for developing a design proposal that considers the local context while reflecting modern architectural principles.

The architectural design of the PCFVTI encompasses over 7,500 sqm, integrating classrooms, offices, laboratories, and dormitories while embracing elements of traditional Islamic architecture. Inspired by Mughal architectural features, the design incorporates bold Islamic arches and domes, which serve not only esthetic purposes but also practical functions such as enhancing ventilation and providing shade against extreme sun rays (Figures 6 and 7). The use of lattices and covered arcades exemplifies a blend of cultural identities, aiming to create a functional yet culturally resonant environment. Notably, the design's approval by local stakeholders indicates a shift in attitudes toward blending modern and traditional styles in institutional architecture[5] Hassan Daud Butt, the former project director of CPEC, pointed out the distinction in design expectations for different building types, highlighting the acceptance of Islamic architectural elements in institutional structures while advocating for modern aesthetics in healthcare facilities.[6] Hassan Duad Butt emphasized that while hospitals in Pakistan typically adopt a modern design approach, institutional buildings such as universities often incorporate Islamic architectural elements, showcasing the nation's cultural heritage. Institutions like Quaid-e-Azam University and Karachi University exemplify this trend with features like pointed arches and domes.

However, the project faced challenges in accommodating local cultural norms, particularly regarding dormitory arrangements. While the Chinese design team conducted extensive research, gaps remained in understanding the specific requirements for staff accommodation, which traditionally involves separate facilities for male and female staff members. The project's initial design proposed a bachelor-style dormitory, which clashed with local cultural expectations. Project manager Sohail Asghar emphasized the importance of separating accommodations, stating, "This is a serious cultural issue." The lack of local architects in the design discussions contributed to this oversight, underlining the need for more inclusive decision-making processes incorporating diverse perspectives.[7] This

[4] Sohail Asghar (Project Director). "Design Process of Pakistan–China Friendship Vocational Training Institute." Interviewed by Sohrab Ahmed Marri, audio recording, September 9, 2020.

[5] "Design Brief of Pakistan–China Friendship Vocational Training Institute Gwadar," Official Document (Arcplus Group, 2019).

[6] Daud Butt, "Design Process and Construction of PCFVTI," interviewed by Sohrab Ahmed Marri, audio recording, August 28, 2019.

[7] Sohail Asghar (Project Director). "Design Process of Pakistan–China Friendship Vocational Training Institute." Interviewed by Sohrab Ahmed Marri, audio recording, September 9, 2020.

Figure 6. Pakistan–China Friendship Vocational and Training Institute rendering representing an eclectic architecture
Source: Document from Gwadar Port Authority (GDA) office. Image used with permission from GPA, Copyright © 2025, GPA.

Figure 7. Pakistan–China Friendship Vocational and Training Institute rendering representing an eclectic architecture
Source: Document from Gwadar Port Authority (GDA) office. Image used with permission from GPA, Copyright © 2025, GPA.

oversight exemplifies the conflict zones in transcultural architecture, where differing cultural expectations can lead to significant design discrepancies.

Construction challenges further compounded these issues, as Gwadar's unique geographical and climatic conditions necessitated innovative solutions. The local construction industry was relatively underdeveloped, relying heavily on materials sourced from Karachi and imported from China. To address these challenges, the China Harbour Engineering Company established an onsite mini-industry for producing building materials, employing local workers, and providing them with training.[8] This approach not only ensured that the project met high construction standards but also fostered local engagement and skill development. Additionally, the engineers devised a stone pile foundation system to counteract the poor soil conditions, highlighting the necessity of adapting to local environmental factors while maintaining construction quality.

Despite these advancements, the PCFVTI project has illustrated the ongoing contestations within established contact zones among different actors. The experiences of local stakeholders have underscored the necessity for improvements in collaborative processes and design practices. Dr. Ahmad Khan, from the CPEC research center, criticized the lack of involvement from local technical experts in design discussions, emphasizing that effective collaboration between international teams and local architects is essential for successful project outcomes.[9] The case of PCFVTI reveals that in the context of conflicts and negotiations, transcultural architecture languages can foster inclusive dialogues and address complex intercultural issues, both practically and symbolically.

4.3. Vernacular mysticism and community engagement in the Djibouti National Archive and Library

Djibouti possesses a rich historical heritage, reflected in its extensive archives and records, which the United Nations Educational, Scientific, and Cultural Organization emphasizes must be preserved as an irreversible cultural legacy. In 2001, the President of Djibouti issued a decree to centralize and safeguard these invaluable resources, subsequently seeking assistance from China to develop a state-of-the-art national archive and library (Official Journal of the Republic of Djibouti, 2001). The Chinese government committed to this philanthropic project, which commenced with a contract signed on October 24, 2016, and a foundation stone-laying ceremony held on April 23, 2017. Strategically located near the military parade grounds in Balbala, the facility spans 30,000 sqm and is projected to cost RMB 220 million. Designed by Hua Shang International Engineering and constructed by Yunnan Construction Investment Holding Group, the complex includes administrative offices, a 300-seat conference room, exhibition spaces, and a library housing 450,000 books and 450 reading seats, all while embodying a collaborative spirit between Djibouti and China in the preservation of cultural heritage.

The Djibouti National Archive and Library project emerges as a pivotal overseas initiative within the BRI, strategically located in the culturally envisioned Balbala district. This area is set to evolve into a cultural hub, accommodating vital facilities such as religious institutions, cultural research centers, hospitals, and clinics. Within this broader vision, the library is designed to serve as a prominent landmark, anchoring the district's cultural identity. The architectural design of the library is a testament to transcultural dialogues, skillfully intertwining

[8] Sohail Asghar (Project Director). "Design Process of Pakistan–China Friendship Vocational Training Institute." Interviewed by Sohrab Ahmed Marri, audio recording, September 9, 2020.

[9] Khan, Planning and collaboration process of Gwadar Master plan.

modern architectural styles with ancient Chinese design principles while simultaneously drawing inspiration from Islamic architectural elements. This fusion of styles illustrates the complex interplay of diverse cultural narratives, creating a building that is not merely functional but also rich in symbolic meaning.

The architectural schema emphasizes spatial and axial symmetry, echoing traditional Chinese designs while incorporating recognizable features of Islamic architecture. The integration of pointed arches and Moorish arches reflects a deliberate effort to resonate with local architectural vernacular, ensuring that the library's design is grounded in the cultural context of Djibouti (Figure 8). This hybrid language is not just an esthetic choice; it aims to establish a dialog between the building and the community it serves, embodying a rhetorical attitude of the architectural project that aims to avoid conflicts and foster cooperation. The design also incorporates tropical architectural elements, such as louvers and latticework, to address the region's climatic challenges, ensuring comfort and sustainability within the building's spaces.

Utilizing the theoretical framework of vernacular mysticism proposed by philosophers Deleuze & Guattari (2013), the library's architecture can be described as a multifaceted communication of cultural influences. The concept of vernacular language is embodied in the local Djiboutian architectural features, particularly the Moorish arches that dominate the structure. In contrast, the interior spaces are imbued with a referential language through the presence of Chinese decor and design motifs, further enriching the narrative of cultural exchange (Figure 9). The overarching architectural form embodies a vehicular language, representing a universal style that transcends geographical boundaries, thus appealing to a broader audience while remaining sensitive to local context.

Moreover, the mythical language inherent in the design philosophy allows for the expression of abstract ideas and narratives that resonate with both Chinese and Djiboutian identities. The incorporation of elements that symbolize Chinese philosophy within the library's architecture allows for a dialogue that transcends the physical space, inviting local inhabitants to engage with a narrative that reflects their cultural realities and aspirations. This bridging of cultures is particularly evident in the careful articulation of interior spaces, which have been designed to evoke a sense of familiarity for Chinese visitors while still paying homage to local traditions. The design choices, such as the strategic placement of the Moorish horseshoe arch in one corner of the façade and the pointed arch in the opposite corner, represent an inclusive design maneuver that seeks to encapsulate the essence of local architecture.

Figure 8. China–Djibouti National Library
Source: skyscrapercity.com. Image used with permission from SkyscraperCity.com, Copyright © 2025, SkyscraperCity.

Figure 9. China–Djibouti National Library interiors
Source: skyscrapercity.com. Image used with permission from SkyscraperCity.com, Copyright © 2025, SkyscraperCity.

This thoughtful integration underscores the project's commitment to fostering an emotional connection with the local population, engendering a sense of ownership and pride in the structure since it reflects their cultural experiences. In other words, collaborative architectural endeavors in the case of the Djibouti National Archive and Library prioritize familiar forms and symbols over avant-garde designs to garner appreciation among Djiboutians, focusing on practical outcomes rather than imposing complex modernist ideas that are rarely perceived by the local community. This approach can be seen as a pragmatic attitude of Chinese firms working abroad since it aims to generate a bridge between the BRI's broader rhetoric of cooperation and mutual exchange and the expression of architectural artefacts on the ground. Through this project, the architects not only facilitate the preservation of local heritage but also contribute to the broader narrative of globalization, demonstrating how architecture can serve as a medium for cultural exchange and mutual understanding in an increasingly interconnected world.

5. Transcultural dynamics and architectural hybrids

The case studies examined—the PCF Hospital, the PCVTI, and the Djibouti National Library—illustrate three distinct configurations of transcultural architectural exchange that align with the core objectives of this paper: to investigate how architectural models are negotiated across cultural boundaries, to uncover sociocultural tensions that arise in the process, and to assess the ways in which transcultural dynamics shape hybrid architectural outcomes. In this manner, these architectural projects reveal the complexity and plurality of processes of collaboration and engagement in transnational architecture practices where the different parties exercise nuanced forms of power at play. Unlike previous literature on transnational architecture movements that has prioritized a dichotomous understanding of local adaptation and homogenization of the built environment, all these cases highlight a recurring theme: transcultural dynamics in the framework of the BRI have led to the formation of architectural hybrids that blend advanced, contemporary design elements with local cultural identities, and traditional architectural forms. The necessity of this approach stems from the need to symbolically incorporate the making of architectural practices into the rhetoric of the BRI as a platform of mutual exchange and collaboration between different cultures. Additionally, this strategy serves as a pragmatic instance to deal with conflicts and negotiations in the specific processes of construction and design, ensuring the execution of the project within certain times and costs. However, while all three projects exercise this common attitude, they do so through different degrees and types of collaboration mechanisms, conflict articulations, and symbolic developments.

The PCF Hospital shows the strongest alignment with the objective of the collaborative model negotiation. The project's iterative design process—rooted in mutual adjustments and knowledge exchange between Chinese architects and Pakistani stakeholders—displays how transcultural design practices can generate context-driven outcomes through direct interaction and feedback. In contrast, the PCVTI reveals how sociocultural tensions—particularly related to local norms and insufficient early-stage participation—can disrupt or complicate these exchanges. However, it also shows how conflict and technical constraints can catalyze forms of negotiated hybridity, especially when cultural symbols are integrated into otherwise utilitarian spaces. The Djibouti National Library, while more limited in participatory engagement, displays how architectural hybridity can also manifest at the level of symbolic expression. Its blending of Islamic and Chinese motifs illustrates the rhetorical and representational function of transcultural design in urban space. Table 1 offers a comparative overview of how each case corresponds to the paper's key research objectives.

These comparative insights reinforce the central argument that transcultural dynamics under the BRI are neither uniform nor unidirectional but contingent on the depth of collaboration, the recognition of local cultural norms, and the intended symbolic functions of the built environment.

Despite the differences previously mentioned, in all the cases, the final architecture output serves not merely as an end in itself but as a means for political and financial purposes. Lawrence Vale's work has highlighted the political utilization of symbolism in architecture, a mechanism deeply inherent to the field (Vale, 2008). However, unlike his capital buildings, where national identity is often imposed, within the framework of global infrastructures such as the BRI, identity is achieved through transcultural dynamics, resulting in a hybrid architectural language. However, all these projects also reveal tensions and power asymmetries inherent in transcultural dialogues. The limitations in local involvement during some parts of the design process highlight the need for a more participatory

Table 1. Comparative scheme of case studies analyzed

Case study	Fields of inquiry		
	Negotiation of architectural models	Socio-cultural tensions	Transcultural architecture outcome
Pakistan–China Friendship Hospital	Collaborative design iterations between Chinese and Pakistani stakeholders	Cultural norms on privacy, family presence, and climate-specific adaptation	Modern healthcare facility balancing local cultural norms and global standards
Pakistan–China Friendship Vocational Institute	Initial collaboration limited, adjusted through local critique and adaptation	Gender norms and environmental challenges	Educational architecture combining Islamic forms with functional and rational spaces
Djibouti National Library	Limited local participation, design primarily led by the Chinese team	Cultural heritage and symbolic dimension	Iconic architecture fusing Islamic motifs with Chinese spatial devices

 https://doi.org/10.36922/jcau.5167

approach that incorporates local expertise early in the planning stages. Furthermore, the reliance on Chinese firms for construction raises questions about the extent to which local communities can gain economic benefits and technical expertise from these projects. Despite these challenges, the architectural exchanges fostered by the BRI reveal the complex schemes and dynamics at play and how these are creating hybrid, globally connected architectural languages that aim to balance local traditions and global standards.

5. Conclusion

This study shows that the architectural exchanges within the BRI are not merely instances of exporting Chinese architectural styles but are complex processes of negotiation, adaptation, and cultural blending. The BRI's architectural endeavors, while instrumental in enhancing China's soft power, also provide opportunities for local architects to engage in the global architectural discourse. Here, the concepts of transcultural dialogues, contact zone, and third space have been demonstrated as fundamental interpretative frameworks to reveal the complexity of social and cultural dynamics involved in transnational architectural exchanges.

Unlike analyses based merely on the critical or regional aspects of transnational architectural exchanges, this paper highlighted that design results, in a given context, may vary based on the different intercourses of collaborative design groups seeking to gain better control of the quality, costs, and outcomes of a project. This suggests that it is important to put more emphasis on the strategies and behaviors of global architecture firms, how they interact within a certain transnational framework, and how they negotiate the construction of the built environment within local and global instances. More research is needed to have a more in-depth understanding of this complex phenomenon. A large number of design and construction projects have been completed and are under development within the framework of the BRI. However, this study has only explored a few of them in specific places. Hence, it would be desirable to explore the phenomenon on a broader scale. Further investigations could also lead to practice-relevant findings to deal with the design of complex transnational endeavors in the future. In this regard, there is a need to build a more pragmatic understanding of the theme of transcultural dynamics in the global design industry, as well as to determine specifically how it can be adapted to inform practitioners in the field—including architects, real estate developers, urban planners, contractors, decision-makers, and all the multitude of agents—that have a prominent role in shaping the nuanced forms of our built environment.

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Conflict of interest

The authors declare no competing interests.

Author contributions

Conceptualization: All authors
Investigation: Sohrab Marri
Visualization: Sohrab Marri
Writing – original draft: Sohrab Marri
Writing – review & editing: All authors

Ethics approval and consent to participate

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Availability of data

The data supporting the findings of this study are available from the corresponding author upon reasonable request. Due to the nature of some qualitative and location-based datasets, certain restrictions may apply to protect confidentiality and comply with institutional review board (IRB) guidelines. Where possible, anonymized excerpts or aggregate results can be shared to facilitate further research.

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