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## Challenging Pedagogical Foundations: Fez and Kerala as Models for Urban Adaptation

### Introduction

Since space and place are rooted in expressions of culture, ideology, and interaction with the environment, a pluralistic view of cultural and environmental adaptation is necessary to respond to a variety of conditions. My research emerges from an interest in how cultural expressions shape spatial organization, particularly outside the influence of Western traditions. Historically, the Renaissance and Baroque periods—revivals of Classical Greek ideals—have reinforced a standard of formal geometry, monumentality, and control over nature as the dominant model for urban and landscape design. Over time, these ideas became deeply embedded in the foundations of Western design pedagogy, shaping both educational frameworks and built environments across the globe.

However, with rising global populations, the urgency of climate change, and increasing concerns for social equity, there is a growing need for urban development models that are more responsive, adaptive, and community centered. Western traditions, while historically significant, offer a limited range of design approaches rooted in a narrow cultural and historical context. This research seeks to study places shaped by different ideologies and environmental needs to reveal new insights that can critique and expand current educational standards in landscape architecture.

In this research, I will examine the cultural identity and site-specific environmental conditions of Fez, Morocco, and Kerala, India as case studies for historic urban development. Through cultural investigations, insights into distinct spatial ideologies – emphasizing adaptability, community, and environmental integration – will offer challenges to the Western

design pedagogy reinforced by Renaissance and Baroque landscape design principles. This research aims to contribute to a more pluralistic and decolonized understanding of spatial organization in landscape architecture and urban development. I will conduct qualitative research based primarily in historiography, with elements of creative analysis through drawings, diagrams, and visual comparisons. My overarching research question asks: How do alternative cultural ideologies and environmental adaptation manifest in the historical urban development of Fez, Morocco, and Kerala, India, and in what ways do these provide comparative insights to critique or expand on the pedagogical foundations of Renaissance and Baroque landscape design?

## **Background**

Urban form reflects the cultures, climates, and histories that shape it. Comparative study is crucial to uncovering how different societies embed values into the built environment. Each built environment is a product of evolving needs, beliefs, and environmental challenges, and a deeper exploration across cultural contexts reveals that there is no singular blueprint for “good” design. My project focuses on the design ideologies underpinning two key contexts: Renaissance and Baroque Europe and historic cities in North Africa and South Asia.

Renaissance and Baroque design ideals emphasized monumentality, symmetry, centralized planning, and the visual domination of the landscape. Edmund Bacon’s *Design of Cities* illustrates how Roman and Baroque urbanism relied on spatial compression, monumental axes, and points of visual tension to structure public life. Large plazas, straight roads, and axial vistas were intended not just for movement but for the creation of awe and order, aligning with a vision of human dominance over the natural world. These aesthetics, rooted in Classical ideals, have long dominated Western education in landscape architecture. They trained designers to

prioritize formal geometry and unified visual experience, often abstracting space into an idealized, controllable framework. Over time, these models became the pedagogical foundation for Western design education, establishing a standard that prized monumentality, visual mastery, and geometric clarity above localized adaptability.

The Renaissance revival of Classical form established a blueprint against which much later urban design was measured, creating a self-reinforcing cycle of replication and valorization. Yet as Aidan White and Mark Whitehead note in their analysis of urban climate change, these standardized models are increasingly insufficient in an era where environmental variability and local resilience are critical. Cities today must confront the realities of climate unpredictability, social fragmentation, and ecological strain. The universalizing assumptions embedded in Renaissance and Baroque principles—such as the ideal city as a controlled and perfected artifact—clash with the need for diverse, adaptable, and context-sensitive urban environments. There is a growing imperative to widen the design canon to recognize culturally and ecologically specific models, not only as historical curiosities but as active contributors to the future of urban resilience.

Current urban development models often marginalize non-Western traditions, relegating them to secondary roles in global discourse or framing them as anomalies rather than legitimate alternatives. Comparative study allows for a deeper understanding of how societies across history have designed for community, ecology, and resilience without reliance on rigid monumentality or visual order. It makes visible a wider spectrum of spatial logics, offering ways to question and expand upon Western assumptions. Focusing on Fez and Kerala highlights urban systems that evolved outside the Western Classical tradition and that offer enduring lessons for contemporary challenges.

Fez, Morocco, is one of the best-preserved medieval cities in the world and a compelling example of an alternative urban logic. The Medina's organic, labyrinthine structure contrasts sharply with the geometric rigidity of Western models. Rather than imposing straight lines and large open squares, the city grew around environmental constraints and social functions. Internal courtyards, passive cooling strategies, intricate hydraulic systems, and ecological zoning all reveal a sophisticated environmental adaptation. According to Moujoud and Chahbi's analysis of Fez's hydrography, the city's water system fundamentally shaped its urban form, offering critical lessons for sustainable water management today. Water channels, fountains, and gardens were integrated into the everyday life of neighborhoods, ensuring decentralized access and microclimate regulation. Narrow alleys, courtyard houses, and neighborhood clustering illustrate a model of urban resilience that privileges environmental integration and community adaptability over visual dominance. Importantly, Fez's urban fabric also successfully layered Berber, Arab, Andalusian, and French influences, creating a living archive of cultural expression embedded into the built environment. Each successive influence adapted to the existing form rather than erasing it, resulting in a palimpsest of social and environmental negotiations.

Kerala's urban forms reflect a different but equally rich story of cultural layering and environmental responsiveness. Situated in a landscape of dense forests, monsoons, and intricate waterways, Kerala's backwater villages and port cities developed unique spatial logics centered on water integration and ecological stewardship. Raised paths, bunds, canals, and timber construction allowed settlements to coexist with, rather than resist, the natural flooding cycles of the region. Houses were designed with steep roofs and elevated floors to accommodate the heavy rainfall and fluctuating ground conditions. In addition to its environmental ingenuity, Kerala's history of Indian, Arab, Portuguese, and Dutch contact shaped its built environment in distinctive

ways. Cities like Kochi display a hybrid urbanism where vernacular timber architecture exists alongside European fortifications, churches, and trading warehouses. The vernacular architecture of Kerala, influenced by the spice trade and centuries of colonial interaction, provides a living example of resilience and adaptation, where external influences were absorbed and transformed within local frameworks rather than dominating them.

Both Fez and Kerala demonstrate that urban form can be profoundly shaped by a society's relationship to environment, spirituality, trade, and governance without adhering to Classical geometries or centralized visual orders. These two cases offer alternative models for thinking about how urban environments can integrate social, environmental, and cultural complexity without relying on Western Classical ideals. They stand as evidence that urban coherence and resilience do not depend on rigid geometric control but can emerge organically through ecological awareness and cultural continuity. Their histories suggest that adaptability, fluidity, and community-centered development are not signs of spatial disorder but sophisticated responses to local realities.

By studying the histories and morphologies of Fez and Kerala, my project seeks to uncover alternative spatial ideologies that challenge the dominance of Western Renaissance and Baroque design pedagogy. In doing so, it aims to contribute to a broader understanding of how landscape architecture education can embrace a richer, more diverse set of principles—ones that prioritize community resilience, ecological integration, and cultural plurality as essential components of good design.

### **Approach and Methodology**

This research is based on a comparative cultural framework, integrating historiography with creative visual analysis. By bringing together historical study and interpretive methods, I

aim to critique dominant Western paradigms in landscape architecture while proposing a broader, more pluralistic understanding of urban design traditions. This framework allows for a richer engagement with how culture, environment, and spatial organization interrelate, particularly beyond the narrow canon of Classical, Renaissance, and Baroque influences.

The project will rely on precedent studies, ethnographic research through literature and image analysis, and historical analysis of urban development. Comparative methods will be used to explore urban morphology, cultural symbolism, and environmental adaptation strategies across Fez, Morocco, and Kerala, India. These case studies provide contrasting yet complementary examples of how communities have historically adapted to environmental conditions and cultural needs through spatial design.

To carry out this investigation, I will use several specific research tactics. The analysis of urban morphology will include sketches and diagrams tracing the layouts of Fez and Kerala through different historical periods. This will help reveal how their spatial patterns evolved over time in response to shifting political, cultural, and environmental conditions. Environmental analysis will focus on documenting water management systems, biodiversity strategies, and climatic adaptations, such as the hydraulic infrastructures of Fez and the canal systems of Kerala. By mapping these elements, I will assess how natural systems were incorporated into urban planning and everyday life.

Cultural symbolism will also play a major role in the research. I will map religious, civic, and domestic spaces to understand how spatial hierarchies and social structures were encoded in the built environment. Special attention will be paid to identifying sacred materials, important plants, symbolic geometries, and spatial rituals that express cultural beliefs and environmental

relationships. Through this lens, I will examine how different societies materialized their worldviews in the construction of cities.

To synthesize and communicate these findings, I will employ a range of visual methods, including collages, chronological diagrams, material studies, and vignettes. These visualizations will help layer cultural and environmental information in ways that highlight complexity and interconnection. Photography and mapping will also support the analysis, utilizing both historical and contemporary images to track spatial continuity and transformation across centuries.

The scope of the research will be delimited to historical urban development up to the early modern period, focusing on the Medina of Fez and the port cities of Kerala, such as Kochi.

While acknowledging the later impacts of European colonization, the primary focus will remain on indigenous and pre-colonial spatial ideologies that shaped these urban environments. By concentrating on this time frame, the project seeks to foreground original models of environmental and cultural adaptation before they were significantly altered by global colonial forces.

The project will follow a structured timeline to ensure thorough and phased development. In the first two weeks, I will define the theoretical framework and conduct foundational readings focused on Renaissance and Baroque design principles, establishing a critical basis for comparison. Weeks two to three will focus on beginning an annotated bibliography, especially emphasizing critical theory sources that interrogate Western design models and advocate for pluralistic approaches. During weeks three to five, the literature review will deepen with focused research into non-Western urban development traditions and alternative spatial ideologies. Concurrently, I will collect maps, images, and historical documentation of Fez and Kerala to support the case study analysis.

Between weeks five and seven, I will begin producing visual documentation, including annotated layouts, chronological diagrams, and cultural vignettes. These creative analyses will set the foundation for comparative study. Case study analysis of Fez and Kerala, conducted side-by-side, will occur primarily during weeks six to nine, allowing for detailed comparison of their urban logic, environmental systems, and cultural expression. Finally, weeks eight through twelve will focus on synthesizing the findings into a comparative critique of Western design pedagogy, drafting the full capstone paper, and finalizing the visual portfolio.

This research aims to result in both a written capstone paper and an accompanying portfolio of comparative diagrams, sketches, and visual analyses. Together, these deliverables will express how cultural and environmental adaptability challenge dominant landscape design pedagogy and open possibilities for a more inclusive, context-sensitive design practice. Ultimately, by closely examining how cultural identity and environmental adaptation have historically shaped urban environments outside Western strategies, I aim to challenge the current pedagogical frameworks and suggest new pathways for more responsive, community-centered design education. This study advocates for a landscape architectural practice that is not only technically adept but also culturally empathetic and ecologically attuned to the diversity of human experience.



## Section: Bibliography

- Aidan While, Mark Whitehead. 2013. "Cities, Urbanisation and Climate Change." *Urban Studies* 50 (7): 1325–31. <https://www.jstor.org/stable/26144293>.
- Ashraf M. Salama, Lindy Osborne Burton. 2023. "Pedagogical Traditions in Architecture: The Canonical, the Resistant, and the Decolonized." *Traditional Dwellings and Settlements Review* 35 (1): 47–72. <https://www.jstor.org/stable/27273582>.
- Bacon, Edmund N. 1978. *Design of Cities*. London, England: Thames & Hudson.
- Moujoud Lamiae, Chahbi Mariame. 2025. "Hydrography as a Guide to Reading the Urban Form of the Medina of Fez." *Materials Research Proceedings* 47: 188–96.  
<https://doi.org/10.21741/9781644903391-22>.
- Noble, Villiam A. 2025. "History of Kerala." In *Encyclopedia Britannica*. Britiannica.  
<https://www.britannica.com/place/Kerala/History>.
- Noble, William A. 2025. "Kerala." In *Encyclopedia Britannica*. Britiannica.  
<https://www.britannica.com/place/Kerala>.
- Paul Memmott, James Davidson. 2008. "Exploring a Cross-Cultural Theory of Architecture." *Traditional Dwellings and Settlements Review* 19 (2): 51–62.  
<https://www.jstor.org/stable/41758527>.
- "Vernacular Architecture - Connecting Kerala and South East Asia." 2024. The Kerala Museum.  
April 4, 2024. <https://keralamuseum.org/article/vernacular-architecture-a-connection-between-kerala-and-south-east-asia/>.