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Tracing Greco-Roman and Byzantine Architectural Legacies in Modern Urban Design of Alexandria, Egypt

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Abstract

This research paper explores the reception of Greco-Roman and Byzantine architecture in the contemporary urban landscape of Alexandria, Egypt. Founded at the intersection of Hellenism and subsequent Roman and Byzantine rule, Alexandria also carries important traces, both spatial and symbolic of classical precedents in urbanism. Through qualitative reading and critical analysis of a few relevant examples of contemporary developments in Alexandria, the Bibliotheca Alexandrina, renovations to the Greco-Roman Museum and renewal of the coastal promenade, the research examines how forms that once belonged to the classical, Byzantine heritage landscape are reinterpreted in contemporary urban planning practices. The results highlighted a selective engagement with heritage, an engagement that is usually based on visual reference or political reason rather than the continuity of function. Many of the projects reflect a sophisticated engagement with historical design principles. Some projects simply replicated referential images of classical forms to establish a brand that ranged from dull to laughable absent context. This research has also signalled the importance of more heritage-sensitive urban strategies that are able to support not just forms of architecture, but the spatial logic and cultural significance that are fundamental to Alexandria's historical identity.

Keywords: Greco-Roman Architecture, Byzantine Urbanism, Alexandria Urban Design, Heritage and Identity, Classical Architectural Legacy.

1. Introduction

Chronologically, Alexandria, Egypt, is one of the Mediterranean cities with the most historical layers. Founded in the fourth century before the common era, by Alexander the Great, Alexandria was designed as a Hellenistic capital, developed and remade with each successive phase of Greco-Roman and Byzantine occupation. Each of these historical moments contributed significant architectural styles and traditions of urban planning, both manifestly and symbolically. Thus, it provides the basis in which the city's physical character and environment summoned the space of cultural identity and imperial presence. Situated at a port of paramount strategic importance to trade, Alexandria existed as a cosmopolitan experience and the imperial centre, making space for a bicultural spatial identity comprised of classical columns, civic forums, basilicas, arcaded streets, and fortified walls.

The purpose of the research is to critically assess how the Greco-Roman and Byzantine architectural legacies continue to inform contemporary urban design in Alexandria. The research is set to be judgments on the presence or adapted re-interpretations of historical classical architectural forms and planning principles implemented in selected contemporary projects and urban interventions in Alexandria. The discussion will contribute to larger conversations on the politics of heritage, spatial identity, and the tension between historical coherence and contemporary urban development in postcolonial cities.

2. Historical Context: Architectural Foundations of Alexandria

The architectural history of Alexandria reveals a palimpsest of imperial agendas, religious change, and aesthetic innovation. Founded in 331 Before Common Era (BCE) by Alexander

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Faculty of Creative Industries & Design, City Graduate School, PHD In Design, City University, Malaysia. the Great, Alexandria was meant to be an enduring monument to Hellenistic urbanism, harmonizing Greek forms of spatial organization with local geographical constraints. The most defining feature of Alexandria was the Hippodamian grid system which produced load-bearing orthogonal blocks of land organized around civic places such as the agora, theatre and gymnasium¹. The monumental colonnades and temples, such as the Serapeum, conveyed the meaning of power for its users through a visual language that was at once pan-Mediterranean and distinctly Alexandrian.

The Roman period disrupted Alexandria's established urban order, but the change afforded a significant opportunity for enlargement and reorganization. New building typologies including baths, theatres, aqueducts, basilicas and other structures added new dimensions and uses for public space². The Roman vision of grandeur and infrastructure augmented Alexandria's imperial footprint as an outpost and maritime node. Although much of the Hellenistic architecture remained intact, or was adapted, the Roman engineering innovations significantly altered not just the skyline, but modes of circulation. The Canopic Way, as the phenotype of public space, operated as both a spatial spine for the ceremonial and the commercial, framed in arcaded walkways and triumphal arches.

New religious and political imperatives marked the Byzantine epoch and transformed Alexandria into a hub of early Christian. The Byzantine period is also marked by an explosion of domed churches, fortified enclosures, and episcopal complexes symbolizing the increasing grip of ecclesiastical authority³. The architectural vocabulary began to shift based upon centralized plans, clerestory lighting, and decorative mosaics symbolizing the theological importance of liturgy. Even though many classical buildings fell into decline due to instability and the seismic foundation of the city, their spatial memory remained among the physical imprint within the urban landscape. The Greco-Roman and Byzantine inheritances provided ways of organizing space; monumental and symbolic architectural forms that have informed Alexandria's identity and have led to selective revival in contemporary urbanism.

3. Methodology

This paper utilises a qualitative, historical-based research methodology that combines architectural theory with urban cultural studies. Data from architectural inventories of the buildings, site visits, planning documents and photographic documentation contemporary developments in Alexandria, Egypt has been collected. Secondary data includes peerreviewed published academic articles, archaeological reports and historical maps which illustrate how Greco-Roman and Byzantine spatial organization transformed and developed. Three case studies were selected based on spatial prominence, architectural form, and levels of engagement and appropriating classical and Byzantine spatial legacy. The case study analysis investigates formal continuities, spatial arrangements, and formal appropriation of meaning in contemporary iterations of urban design. A comparative interpretive approach evaluates how presentday developments rebuffed referencing historical items against current planning needs⁴. The methodology is underpinned by heritage urbanism and critical spatial theory, permitting an analytical exploration into how

memory, identity, and power have been inscribed into Alexandria's fluid architectural landscape.

4. Case Studies

4.1 Bibliotheca Alexandrina

The Bibliotheca Alexandrina is the clearest demonstration of contemporary Alexandria's effort to point toward its classical past because the original Library of Alexandria is simply lost now. Nonetheless, the new Library takes the idea of intellectual heritage embodied in architectural form and builds on it⁵. Designed by Snøhetta, the building has a massive circular tilting disc that stands for the cyclical nature of knowledge and the movement of heavenly bodies, both significant to Hellenistic thought. The granite covering of the building is engraved with characters from more than a hundred scripts, describing Alexandria's ancient cosmopolitan past. Around the Library is an open plaza, reminiscent of the classical forum, which make the building more of a public dialogue space for cultural exchange⁶. Even if the building does not look like a Greco-Roman structure, the library fits with the abstract philosophical and civic concepts of classical urbanism, and in doing so, projects a modernist interpretation. Ultimately, this arrangement of ideas in the physical places within Alexandria builds a continuity between the idea of urbanism that constructed identity anchored in antiquity with one that aims for aspiration.

4.2 Refurbishment of the Greco-Roman Museum

Establish in 1892, the Greco-Roman Museum has experienced notable refurbishment, as well as, enlargement. Organised with the goal of preserving the museum's architectural integrity while allowing for contemporary investigations into museological practices, refurbishment of the museum is aimed at utilizing the existing neoclassical body, architectural language, and façade. Besides, its Corinthian columns and classical pediment, alongside contemporary practices with digital display and climate control are also utilised⁷. The architectural language of the Greco-Roman Museum serves as a deliberate marker of historical continuity reflecting Greco-Roman architecture and aesthetic. As an institution, the building is a curatorial device of memory that through its spatial layout and ornamentation emulates the characteristics of a Roman basilica and a Greco-Hellenistic civic building. The reuse of its colonnaded halls, marble flooring, and axial symmetry establishes a spatial narrative in keeping with classical values of order and monumentality⁸. This project evidence how refurbishment can retain architectural fidelity while presenting new contemporary uses or functions, allowing important heritage to remain active and alive in the urban context.

4.3 Stanley Bridge and the development of the Corniche

The Stanley Bridge, completed in 2001, is a significant piece of infrastructure on the Alexandria Corniche that evokes Byzantine and Greco-Roman styles. Although it is a centrally placed vehicular bridge, with four corner towers flanked by stone balustrades, the design appears to reference medieval and late Roman fortifications⁹. The beachfront placement of the bridge is also reminiscent of the ancient Romans, who were preoccupied with coastal infrastructure, notably harbours and coastal promenades. Other developments along the Corniche, such as the tiled or paved pathways for pedestrians, arcaded commercial fronts, and plaza spaces is a thematic continuity with classical

urbanism. However, these represent only superficial ornamentation and not structural integration. Like the bridge and surrounding public space, these later developments provided a visual unity that referred to a claimed historical maritime identity in Alexandria, while they were nevertheless a selected commodification of heritage for tourism visions and visual branding that raises issues about authenticity and depth of architectural homage in infrastructural urban development.

5. Urban Planning and the Greco-Byzantine Legacy

Current urban planning practices in Alexandria only show some elements and component parts of Greco-Roman and Byzantine spatial logic in the form of multiple incomplete mappings of Greco-Roman and Byzantine models. Areas demonstrating contemporary grid ordering and Greco-Roman antiquity grid relationships remain among key central areas; for instance, some districts located around El-Mansheya and Attarine. The disruption of classical urban logic has occurred due to long term (and very recently informal) urban expansion and low-level post colonialism¹⁰. Nevertheless, planners and architects still engage with ancient ordering at the margins of determinations in contemporary proposals and documents, especially in heritage environments and redevelopment projects along the coastline.

Urban renewal projects and shift of vernacular patterns of urbanism have been through the recent process of inserting public squares, open courtyards, and linear promenades into contemporary planning and design. This echoes of civic gathering elements from classical typologies¹¹. Yet, just as with all the planning and associated elements already discussed, none of them force or command reverence or a principled approach for the contemporary practices existing today. There is no philosophical urbanism of civic harmony, scale, and collective life. Zoning practices, prioritizing movement by car as the principal purpose of planning, and a commercial emphasis constrict planning. These projects mainly mimic and not embody historical models.

Furthermore, modern planning seldom accounts for Alexandria's complex architecture, resulting in the sidelining of Byzantine religious and administrative buildings, which receive less prominent visual representation than do relics of the Greco-Roman period¹². Consequently, the use of classical principles in modern Alexandria is somewhat haphazard and continues to exemplify the broader tensions of the balance between conserving heritages of places, promoting urban development, and socio-political concerns.

6. Discussion

The juxtaposition of Greco-Roman and Byzantine architectural legacies within contemporary urban design in Alexandria recognizes a multifaceted interaction between memory, historical identity, political projection, and urban performance. Contemporary architectural works often mobilize classical forms, but not as continued living embodiments of ancient urbanism¹³. Instead, they are presented as artifacts of museums and included in more extensive heritage branding and cultural impact narratives. Some of the more recent urban projects that engage with ancient forms, like the Bibliotheca Alexandrina and the renovated Greco-Roman Museum, are trying have a

continued engagement with ancient civic ideals, however, others are more focused on aesthetics and wholly separate form from function.

In this way, these distinctions offer insight into larger heritage management trends, whereby ancient architecture is represented as a tradable product in the name of tourism and to support a curated abstraction of national identity¹⁴. The prominence of Greco-Roman references instead of Byzantine architecture crystallizes the relationship between age, memory, and position in contemporary politics, where some temporal periods are strategically amplified and some underrepresented in prominence and memorial gain visibility on the world stage. The Byzantine contribution, particularly related to ecclesiastical architecture and urban defence, has been almost entirely elided while covering the city's historical morphology.

Moreover, the disconnect between Alexandria's organic urban development and its historic spatial order highlights the limitations of symbolic referents when not built into a set of comprehensive planning practices. In many instances, intentional spatial references in the use of heritage in infrastructure and housing acts are limited to the way it looks rather than the way it has a structural or social resonance¹⁵. Without articulated policies that embrace spatial continuity and participatory planning, there remains the potential for Alexandria's architectural heritage to devolve into a decorative imagery, erasing the nuances and complexities of Alexandria's classical and Byzantine legacies.

7. Conclusion

The present-day urban fabric of Alexandria illustrates a selective and often symbolic engagement with its Greco-Roman and Byzantine architectural heritages. While particular interventions are effective instances of reinterpreting classical components to instil civic identity and cultural continuity, others use historical references in present-day style that are detached from the consequence of their original forms and their related spatial and social functions. The difference between heritage in architecture and design, versus the needs of urban modernity, reinforces the necessity for more historically informed urbanism and Growing and maintaining planning. architectural inheritance must actively engage with not just the visual representation of the urban landscape of the past, but also with the underlying urbanistic principles that constituted the urban condition of the historical city, and continue today to relate the actual to their symbolic logics for and to the built environment.

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