Traces on the palimpsest: heritage and the urban forms of Athens and Alexandria

Keywords
Cosmic urban forms; palimpsest; heritage

Abstract
This paper discusses the interactions between the symbolic significance of heritage and urban form. It uses the analogy of a palimpsest to investigate the links between the distinctive spirit of the historic city, the symbolic significance of its heritage, and its urban form. Specifically, it investigates the links between a city’s heritage and the formation of cosmic urban forms that combine geometry and urban rites and rituals. Based on the historic comparison of Athens in Greece and Alexandria in Egypt, the paper offers a contemporary definition of cosmic urban forms and identifies their characteristics. The paper thus asks: How can the symbolic significance of heritage be spatially articulated within the contemporary urban landscape? How can this spatial configuration be transformed into a cosmic urban form? And, what are the characteristics of historic and contemporary cosmic urban forms?

To address these questions, this paper introduces the urban palimpsest concept and its links to heritage, the spirit of place, and cosmic urban forms, and proposes a theoretical framework accordingly. It then introduces the methodology that combines town plan analysis, archival research, and GIS, and employs it to compare four contemporaneous layers of the urban form of Athens and Alexandria: a) during their early periods, at the stage when their Classical urban form evolved and matured, b) during the first half of the nineteenth century when both cities were liberated after centuries of Ottoman rule and similarly ‘re-discovered’ by the ‘West’, c) during the twentieth century when they faced similar challenges of rapid urban growth, and finally, d) as they transition into the twenty-first century when Athens and Alexandria similarly attempt to reconfigure their urban form and to reinterpret the symbolic significance of their heritage. Finally, based on the analyses, the paper presents its conclusions and offers recommendations for contemporary urban design.
Palimpsests and the symbolic significance of heritage

The urban landscape is thought to resemble the palimpsest, which is the writing block or parchment that can be erased and reused several times although traces remain as marks inherited from the past (Crang 1996: 430) that gradually evolve into heritage (AlSayyad 2001: 3; Graburn 2001). Whether intangible or tangible, heritage transforms the palimpsest of the urban landscape into “social and symbolic processes that can be reconstructed through the traces they leave and the representations they inform” (Crang 1996: 430). The traces and representations of heritage are related to the distinctive spirit of the historic city. Aldo Rossi (1984) equates the city’s “soul,” (130) with the collective memory of its history hence explain the ancient need for a foundation mythology (Rossi 1984). Throughout history, a city that is imbued with mythology eventually acquires a cosmic morphology that reflects, through a combination of geometry and rites, its distinctive religious and political status (Lynch 1981; Rykwert 1976). For example, protective walls and gates speak of political power while sacred centers convey a religious spirit (Lynch 1981). Theorists argue however, urban rites and rituals, themselves elements of intangible heritage, augment geometry with functions and activities that foster a collective experience of urban space. It is such a collective experience that transforms the urban form into a cosmic one (Lynch 1981: 79; Rowe 1997; Rykwert 1976).

Historic cities nowadays face the challenge of how to preserve their soul or spatial spirit, which is also known as their sense of place (Norberg-Schultz 1991; Pendlebury 2009; Jivén and Larkham 2003; Larkham 1996; Tiesdell, Oc, and Heath 1996). Planners use urban design either by combining historic preservation and traditionalist designs (Jabareen 2006), or by preserving the city’s morphological characteristics (Jansen-Verbeke 1998: 740; Pendlebury 2009; Jivén and
Recent arguments maintain that urban preservation alone is not sufficient because of the standardization of micro-scale urban design and of historic preservation, which yield similar and indistinctive places (Beriatos and Gospodini 2004; Gospodini 2004). This view maintains that two concurrent processes must occur: urban preservation and contemporary innovative designs to create ‘glocalized’ urban landscapes that articulate a contemporary but distinctive spirit of place (Beriatos and Gospodini 2004: 191; Gospodini 2004; Nagel 2002). This paper contends that the preservation of the spirit of place extends beyond physical elements hence, the reuse of the urban palimpsest entails three components: urban preservation that equally balances the symbolic significance of intangible and tangible heritage, contemporary innovative designs, and urban rites and rituals that bind residents and establish continuity from the past. Collectively, these three components maintain the distinctive spirit of the historic city and generate contemporary cosmic urban forms.

The Methodology

This paper builds on the premise that “if old town plans can be digitized, comparison between old and new plans can be easily achieved and some form of quantitative analysis is possible” (Lo 2007: 87). Therefore, the proposed methodology combines Conzen’s (1969) town plan analysis, GIS technologies, and historical and contemporary maps. Other secondary sources, such as historical archives and contemporary publications also augment the analysis.
Accordingly, GIS analyses reconstructed the street pattern from the Classical era and from the mid-nineteenth century period, which was achieved by scanning historical maps1 of Athens and Alexandria from the Classical era and the nineteenth century then georeferencing them in ArcGIS. The street systems were created in line format based on the georeferenced historical maps and the resulting street networks were then set to Equidistant Azimuthal projection, which preserves distances more accurately than other projections (Gott III, Mugnolo, and Colley 2007; National Mapping Program 2002; Lo and Yeung 2002).

The Classical cities

Athens’ foundation was mythological and the street network represented the city’s organic relationship to its setting namely, the myths of Kekrops, Hephaestus, and Athena, instead of adopting a pure geometric order (Meier 1998). While Alexandria’s street network was laid out by its planner Dinocratis as a pure geometric gridiron (Pollard and Reid 2006: 24-25), that highlighted the city’s relationship to the Mediterranean, particularly through two axes that parallel and perpendicular to it (Abdel-Salam 1995; Vrettos 2001). GIS analysis confirms how these conceptual differences also manifest themselves in the urban form with significant differences in total areas, length of streets and, number of street segments (table 1).

Notwithstanding the differences between their foundation concepts, the street network in both cities intertwined with the innovative design of public spaces and new civic buildings, which acquired symbolic significance and became landmarks. Athenian open spaces and innovative civic structures included the Agora, Olympieion, Odeion, Theatre and Hephaestium

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1 All historical maps were obtained from the Map Library at the University of Michigan, Ann Arbor, in the USA where they were scanned and digitized.
among others. The Panathenaic Way highlighted their sequential experience and their hierarchy particularly, the dominance (both visual and functional) of the Acropolis and thus reflected religious, political, and social ideals of a harmonious civic life transformed Athens into a *genius loci* (Rossi 1984: 136; Meier 1998: 399).

Similarly, innovative public spaces and civic structures were constructed in Alexandria such as, the Heptastadion, Bibliotheca, Mouseion, Soma, Serapium, and Pharos that, in their fusion of Greek and Pharaonic elements, reflected Ptolemy’s efforts to legitimize his dynasty’s rule over Egypt after Alexander’s death. Two main streets, the east-west Canopic Way and the north-south Street of the Soma, connected Alexandria’s formal gates and its innovative structures and gradually led to the city’s most prized civic buildings: the Bibliotheca and the Pharos (Ibrahim and Ibrahim 2003; Pollard and Reid 2006; Vrettos 2001; Abdel-Salam 1995; El-Abbadi 1990). Through these innovative urban design initiatives, Alexandria’s urban form became imbued with the symbolic significance of its tolerant cosmopolite and precocious academe.

**The nineteenth century**

By the end of the eighteenth century, and following centuries of decline during the Ottoman rule, both cities were reduced to one organic urban quarter, the Plaka in Athens and the Gomrok in Alexandria² with less than 5000 inhabitants each (Reimer 1988, 1993; Bastéa 2000). The first half of the nineteenth century however, witnessed a turning point in their histories with their similar exposure to Western European influences. The Western allies (France, Britain and Germany) assisted Greece in winning its independence from Ottoman rule, and assigned the

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² Several historical maps prepared by Thomas Walsh that date to 1801 refer to the Gomrok as the New Alexandria, probably to distinguish it from the Classical remains. The map is available at the university of XX special collection library.
Bavarian Prince Otto as its new monarch (Bastéa 2000; Roberts 1996). Simultaneously, Napoleon’s expedition to Alexandria in 1798 and Mohamed Ali’s separation from the Ottoman Empire transformed Alexandria into a gateway to the Orient and a major Mediterranean port (France 1991; McGregor 2006; Stevens 1963).

In Athens, the allies perceived the Classical heritage as part of a European collective past and a source of European and Greek national pride (Bastéa 2000; Boyer 1994; Faubion 1993; Leontis 1995). Simultaneously, Mohamed Ali offered the Europeans in Alexandria concessions such as land ownership and tax exemptions to encourage them to participate in its growing economy (Reimer 1988, 1993). Consequently, Alexandria witnessed an influx of European immigrants especially, Greeks and Italians who transformed it for the second time in its history into a cosmopolitan hub (Awad 1996; France 1991; Reimer 1988, 1993).

These influences were reflected in urban space whereby the Schaubert-Kleanthes plan won an urban design competition for a new Athens whose innovative design designated the earliest urban archaeological park in the world that drew on the collective memory of its Classical heritage as genius loci (Bastéa 2000, 1994; Faubion 1993; Tung 2001). Similarly, and through the efforts of the Conseil de l’Ornato (which was founded by its new European citizens), Alexandria underwent innovative urban design initiatives. The Conseil sought to incorporate Alexandria into the global economy through a new Europeanized urban form (Reimer 1993; Ilbert 1997; Starr 2005).

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3 European trade with Egypt increased from two to fifty million Egyptian pounds during the nineteenth century, the bulk of which passed through Alexandria’s port (Reimer 1993). This, along with the concessions offered by Mohamed Ali, tempted Europeans, who were less than 100 at the time of Napoleon’s arrival, to move to Alexandria. Their numbers exceeded 42 000 by the end of the nineteenth century (Abdel-Salam 1995; Reimer 1993).
The ensuing urban forms of Athens and Alexandria shared many morphological characteristics especially, their division into a traditional quarter (the Plaka and Gomrok) and a Europeanized quarter (New Athens and the Frankish quarter). Most importantly, the new street networks of the latter were remarkably similar in their formation of a regular geometric gridiron, overlaid with diagonal boulevards that intersect the grid at 45°. The diagonal boulevards also converge at a focal point and radiate towards different parts of the city. Moreover, the new street network had strong associations with the symbolically significant elements from the Classical era: in Athens, the Acropolis Hill became the focal point of New Athens while the Corniche in Alexandria re-emphasized its Mediterranean associations. Finally, statistical analyses also reveal that the newly designed street networks of Athens and Alexandria share more similarities at this stage than at any other throughout their histories. The two street networks cover a similar area, and share similarities in the number of street segments and the total of street lengths (Table 1).

**The twenty-first century spatial reconfiguration**

With the prominence of their statuses, Athens and Alexandria witnessed rapid population growth that exceeded 100,000 by the second half of the nineteenth century (Tung 2001); (Reimer 1988, 1993). Both cities struggled to cope with the increased demands on their civic spaces and structures especially given political events such as the Greek civil war and the Egyptian nationalization policies (Orbaşlı 2000; Tung 2001; Ilbert 1997; Starr 2005). The onset of the twenty-first century provided both cities with urban design opportunities with Athens’ selection for the 2004 Olympic Games and Alexandria’s plans to inaugurate its new library in 2002. The Project for the Unification of The Archaeological Sites of Athens and the 2005 Visionary Plan for Alexandria were proposed (Beriatos and Gospodini 2004; Dix 1985).
Town plan analysis at the city level reveals that the two plans depend on three similar urban elements: the diagonal nineteenth-century street network and associated public squares, a major street, and innovative designs for contemporary civic structures. Additionally, both plans propose traffic-free zones and city walks. To begin with, the nineteenth-century street network in Athens and in Alexandria received facelifts including rehabilitation and improvements to their associated public open spaces such as the plazas in Athens and the French Gardens in Alexandria (Beriatos and Gospodini 2004) on Athens and (Starr 2005; Rahman 1993).

Athens’ plans also include a pedestrian promenade that lies south of the Acropolis and connects six major archaeological sites⁴ (Beriatos and Gospodini 2004), while Alexandria’s Corniche (nineteenth century waterfront road) underwent rehabilitation and provisions for pedestrian activities to emphasize the city’s historic relationship with the Mediterranean (Starr 2005). Finally, both cities witnessed innovative designs for contemporary civic structures namely, the New Acropolis Museum of Athens and the New Library of Alexandria. Their designs, albeit contemporary and innovative, recall the two cities’ Classical legacy; the New Acropolis Museum resembles the Pantheon in its open space and columns (Costanzo 2009: 25 and 29; Biétry-Rivierre 2008a), while the New Library of Alexandria is inspired by the Pharaonic sun disk as it emerges from the Mediterranean waters that also brought the Greek culture to the city (Dykers 2002).

Building on Conzen’s notion of integrating inherited heritage within contemporary morphology (Conzen 1981), these new civic structures were linked to the historic nineteenth century street network via the promenade in Athens and the Corniche in Alexandria. These two

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⁴ These six sites are: the Olympieio, the Acropolis’ slopes, the Agora, Hadrian’s library, Filopappos hill, and Keramekos (EAXA 2008).
main streets also incorporate the cities’ heritage into their “rightful place in the daily life of the inhabitants of, and visitors” (EAXA 2008): slide 67; (Starr 2005).

Conclusions

There is general consensus that the spirit of the place or its distinctive identity is influenced by those elements from the past that remain on the urban palimpsest as it is reshaped (O'Brien 1997). The comparative analysis demonstrates that the essence of the distinctive spirit of place remains constant throughout the centuries, explicitly Athens as genius loci and Alexandria as a cosmopolitan hub. The spatial articulation of each city’s spirit was achieved through a cosmic urban form that reconciles tangible and intangible heritage, contemporary geometry, and rites. Instead of a nostalgic reconstruction of all traces on the palimpsest, tangible heritage such as historic streets, squares, arcades or structures establish rational continuity with the past while urban rituals and rites re-adapt the use, form, or meaning of these physical elements and synchronize them with contemporary ones (Broadbent 1990; Rowe and Koetter 1978; Rowe 1997; Lynch 1981; Rossi 1984; Vidler 1978).

<table>
<thead>
<tr>
<th>Unit of Analysis</th>
<th>The Classical Era</th>
<th>The 19th Century</th>
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<tbody>
<tr>
<td></td>
<td>Athens</td>
<td>Alexandria</td>
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<tr>
<td>Sum of length of all streets (km)</td>
<td>12.610</td>
<td>66.608</td>
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<tr>
<td>Shortest street (km)</td>
<td>0.005</td>
<td>0.014</td>
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<td>Longest street (km)</td>
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<td>1.859</td>
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<tr>
<td>Average length of streets (km)</td>
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<td>0.221</td>
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<td>Number of street segments</td>
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<td>301</td>
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<tr>
<td>Total area (km²)</td>
<td>0.902</td>
<td>7.307</td>
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</tbody>
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Table (1): Street network and area analyses of Classical & nineteenth century Athens and Alexandria
References


