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in the transformation of the urban South
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Insurgent Spatiality in Informal Cairo. Recovering Vernacular Patterns in the Contested Metropolis

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Since the 1970s, in Cairo, the mainstream planning tried to cope with growth and overcrowding by strengthening spatial control. The governmental centralization of power and resources resulted in a substantial deficit of governance. The spontaneous reaction to social polarization and segmentation of the urban space is the informal occupation or re-appropriation of the urban space, generating new relationships between the city and citizen's behavior. By exploiting bibliographical sources and morphological analysis of the informal built fabric, the paper offers a cognitive support for alternative approaches to the insurgent spatiality generated by informality, showing how the contemporary morphology and customary use of shared spaces rely on traditional patterns once underlying the historical urban layout. By integrating citizen's participation, recovering vernacular patterns can provide solutions to several issues: housing, waste management, water supply, employment and entertainment.

Keywords: Segmented city, Informal settlements, Insurgent spatiality, Vernacular tradition.

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Cairo: the Contested Metropolis

Cairo is among the most populous metropolises in the Arab world, absorbing about 40% of the Egyptian population. Over the 20th century, the urban management policies have had to face the continuous growth in population and the issues related to the huge geographical area gravitating on the Cairene conurbation. This resulted in ineffectiveness and generated severe problems (La Greca: 1993, 1996): the spread of informal housing solutions; the overcrowding in historic areas; the transformation, gentrification and deterioration of ancient urban fabrics; and the use of monuments, burial sites and marginal areas of the city (such as the Nile banks and islands) for residential purposes.

The administrative system inherited from the Mubarak epoch was hallmarked by weak decentralization and a constrained context that affected planning and financing processes. According to law, local units were fully autonomous to manage community affairs; actually, executive chiefs controlled popular Councils, while local entities and other agencies were completely subordinated administratively to central entities. Planning capacity was weak at the local level, due to the rigid budgetary system and to complex administrative structures and fiscal regulations. Community involvement was limited, due to a lack of channels of communication and to the inability of the community representatives to influence the executives. (Mve Unit of the Egyptian Environmental Policy Program, 2004). In the field of urban policies, the substantial deficit of democracy and popular participation led to an almost total centralization of power and resources and prevented citizens and their associations the access to the management of their habitat.

As a reaction to these unsolved issues, the impressive urban and demographic expansion produced a huge proliferation of informal settlements and rapid changes in the social structure, once strongly connoted by a traditional Islamic organization. The "informal city" far exceeds the official one in spatial size and population: the Zones of Spontaneous Urbanization (ZSU) cover 52.8% of the built surface and host 62% of the inhabitants of Greater Cairo Region (more than 18 million), usually middle-class (Sims, 2004). With the gradual worsening of the economic and social disparities in the Country, the tensions accumulated over time were bound to explode when an external impulse, aimed to vindicate democratic rights, had lit the fuse of rebellion. On January 25, 2011, the unique group of demonstrators who manage to occupy the central Tahrir Square started marching from Bulaq al-Dakrur, as reported in a WSJ's popular article (Levinson and Coker, 2011). The organizers chose this informal urbanization because of the greater chance to involve a huge mass of protesters.

Segmentation and Segregation

Today, Cairo appears as a juxtaposition of several smaller cities, different in urban design, economic role, cultural level and social sphere of inhabitants. We can identify three main modalities of formation of the urban fabric, characterized by the diversity of time and conditions underlying their origin (fig. 1).

The historic city results from the consolidation of urban structures over centuries. It incorporates the walled traditional city, al-Qahirah, coinciding with the urban surface represented by the *savants* in the *Description de l'Égypte* of 1798; the constellation of rural villages, which in the same period were around al-Qahirah; and the so-called City of the Dead, monumental cemeteries today informally occupied and inhabited.

The formal city includes the planned developments since 1798 until today, all linked by the western cultural matrix: the districts built in the colonial period and in previous decades; the public housing, paradigmatic of the Nasser epoch, persisting in the policy of acquisition of foreign urban models; the districts planned and realized mostly by private initiatives in the next decades.

They are complementary to public housing because of the formal similarity but with an opposite social-economic symbolism due to the high quality standards.

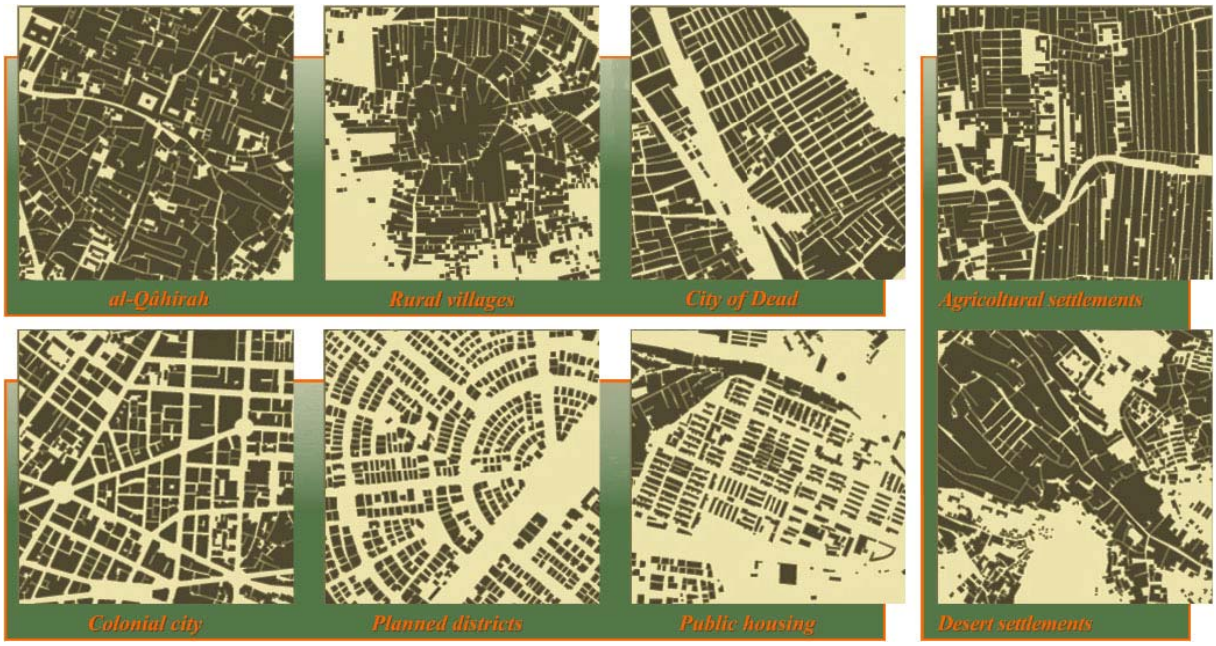

Figure 1. Urban fabrics. Different typologies belonging respectively to the historic city (above), the formal city (below) and the informal city (on the right). Source: Authors, 2006.

Finally, the informal city collects two types of ZSU: settlements on ex-agricultural land are illegal districts built on private-owned land by residents with an economic condition sufficient to build urban-type dwellings; settlements on state-owned desert areas are poorer, sometimes with a rural inspired architecture. They share common urban issues: lack of services, poor roads, high-density housing.

Urban areas with different fabrics are frequently separated by physically structured and well-recognizable boundaries. Some of them arise from the legacy of the ancient city's organization: the sub-rectangular area that encloses the historic city is still limited to the north and east by the Saladin's walls, with very few doors, and by the Citadel complex; to the west, the route of former Khalig channel, buried in 1897, is now replaced by a broad avenue for motorized vehicular traffic. The reorganization of the Azbekiyya square and the *perchées* designed by the Haussmannian *Plan General* of Pierre Grand Bey (late 19th century) pursued the intent to make permeable the ancient city on the western side, but were insufficient to integrate the old city to the new colonial city and excluded it from the more productive and representative functions.

Other barriers are been produced by the 20th century planning choices. The inflow of foreign capitals generated considerable speculation in land and building: then was the attempt to control the sprawl through contemporary international planning models. The 1970 Master Plan tried to limit the urban area through two concentric beltways and the decentralization of some residential households to alleviate population pressure. Requirements related to the transport efficiency also characterized the 1982 Master Plan, with the design of the Cairo Ring Road and several major highways cutting through the urban fabric. In the Nasser period, some social housing districts, such as 'Ain al-Sirah, and two districts to house the bureaucracy class (Mohandessin and Nasser City) have been built.

These planning decisions produced a social division, by creating separate habitats intended for different classes, with very different construction quality and service levels. However, strongest segregation is suffered by the informal settlements, whose origin and development clearly has gone beyond all expectations of the planning tools since the mid-twentieth century. ZSU therefore have occupied the sites, which primarily should be protected from the built expansion: on the west side, agricultural land beyond the Nile (Bulaq al-Dakrur); on the east side, the slopes of Mokattam (Manshiet Nasser).
Despite its central location, the district of Bulaq al-Dakrur is a relatively isolated community of over half a million inhabitants. The corridor composed by the railway line, the metro and the ancient al-Zumur channel is a relevant barrier to the pedestrian and vehicular crossing towards the neighbouring bourgeois districts, Agouza and Dokki, and to connecting with the centre (fig. 2). There are only two roads and five pedestrian bridges crossing the canal and the railway. The southern boundary of the district, marked by the King Faisal Street, offers only three entries, while the Cairo Ring Road to the west has only one exit giving access to Bulaq al-Dakrur. On the north side, the 26 of July Street is a barrier between the district and Imbaba. A metro station and two bus lines connect with the downtown, but do not penetrate into the district, that is served by private minibus and collective cabs.

Figure 2. Bulaq al-Dakrur. Access points (left) and physical boundaries.
Source: Authors, 2006.

The informal settlement of Manshiet Nasser is surrounded by the Mokattam desert hills, while on its western side, the El Nasser Road separates the district from the rest of Cairo; over a 3 km length, there are only three crossing pedestrian bridges, connecting Manshiet Nasser to the northern Mamluk cemetery of Qarafa al-Kubra. Moreover, many waste collection areas are located on this front of the settlement, contributing negatively to the image of the district and to the community segregation.
The location of the ZSU depends on the social-economic subdivision of the city: they stand on the edges of the legal city, separated by physical, natural or artificial, barriers. Furthermore, the population tends to come together in homogeneous groups according to geographic origin, economic status or religious affiliation, by meeting ancient criteria of land division. In the late 1980s, however, it was noted (El Kadi, 1988) that the fairly homogeneous class of the inhabitants with medium-low social and economic conditions mainly composed the Egyptian population.
This has resulted, to date, that the physical segregation of ZSU doesn't correspond fully to social segregation: often they have the size and characteristics of inland cities with their own social stratification, where bourgeois and illiterate people are sharing the same habitat and enjoying the same facilities.

Instead, the members belonging to the extremes of the socio-economic ladder are housed in highly segregated but small sized and exclusive areas. This is the combined effect produced by the encounter of an overall coherent population structure with settlement and planning models belonging to exogenous models. The genesis and spread of spontaneous urbanization phenomena lies outside of and in response to these models. The city appears as a flawed and distorted reflection of the settled society. This is understandable assuming that

"The segmentation of the city originates in the same moment in which decisions concerning the production of building space and allocation of fixed assets to urban land are taken, decisions to which the processes of anticipation of active realtors come" (Alfonso and Óscar, 2005).

Only relatively recently the Egyptian urban economy has really entered the liberal global market; the choices of development in specific urban sectors through private or state investments in real estate are able to trigger segmentation in the production of built space. The result is the spatial segregation and amplification of the dynamics of social differentiation and exclusion, which in recent years are intensifying (Yousry and Aboul Atta, 1997).
The road metropolitan infrastructure designed to give easier circulation to vehicular traffic is a glaring evidence of the overlap of a quite abstract planning model on the real land. Fast freeways are able to isolate entire inhabited areas, and sometimes radically transform the urban fabrics, which are the legacy of the past. The 26 of July Road axis crosses the Nile connecting the downtown to the Cairo-Alexandria Desert Road. In 1998, its implementation operated a cut in the ancient rural village of Mit Okba, an enclave absorbed by the expansion of Mohandessin. It caused the contextual demolition of nearly two acres of historic fabric and the relocation of the residents; then the split of the original settlement in two residual areas on both sides of the road, now connected by only a few pedestrian bridges (fig. 3).

Figure 3. Mit Okba. The cut opened by the 26 of July Road through the former rural village.
Source: Authors, 2006.

Segregation has another clear manifestation in the allocation and quality of collective spaces intended for fun and relax, especially parks and green spaces. In 1980s and 1990s, with the 'infitah' policy, the *Belle Époque* gardens and the Corniches of Nile have become property of luxury hotels and restaurants (Rabbat, 2004).

Nowadays, the residents of lower income districts are excluded from the free use of the few still non-built spaces (fig. 4).

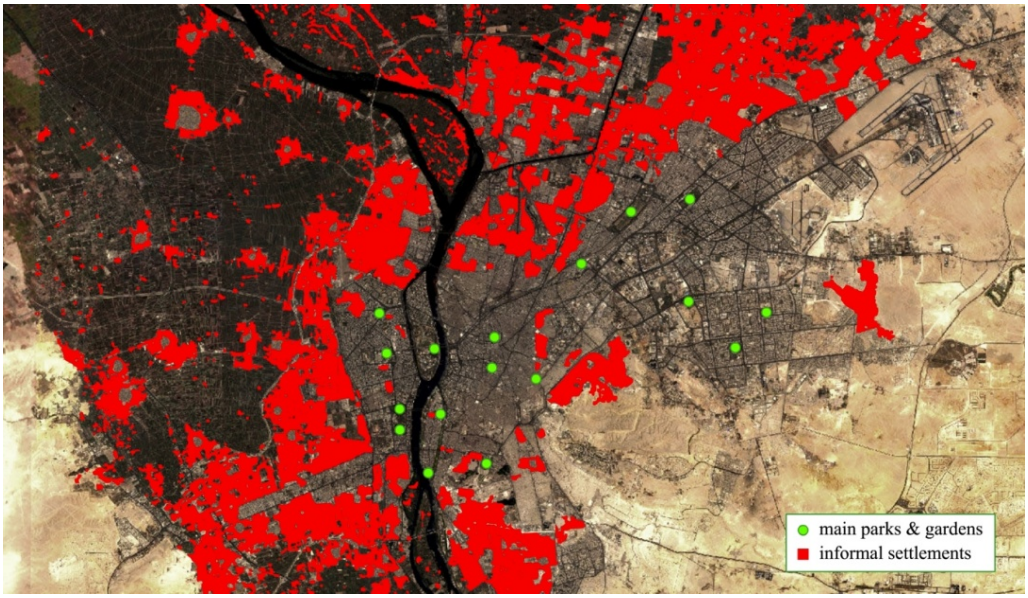

Figure 4. The location of main public parks and gardens compared to the spread of informal settlements in Cairo. Source: Authors, 2011, partially adapted from Séjourné, 2009.

Parks and public gardens, for reasons of decorum and conservation, are often fenced and assigned to specific administrative offices. They are financially supported by the proceeds of the entry tickets and inside commercials. Only 30% of them are placed in the poorest districts. While the cost of tickets affects the enjoyment by the wider public, the élites avoid mingling with the lower middle class preferring the exclusivity of clubs and private pleasure sites. Small district gardens are in poor condition or are simply closed and intended for merely ornamental purposes (Amin, 2002; al-Messiri, 2004).

Urban segmentation is the cause of a metropolitan life as a summation of patterns of use and daily routes, which each citizen, individually or together with its restricted community, carves out from the available motion range, only occasionally interacting with the rest of the population. So, a hypothetic resident in Wust al-Balad, the city centre, rarely has motivation or opportunity to visit Bulaq al-Dakrur or the City of the Dead.

Similarly, a citizen from Manshiet Nasser could never in its life have a chance to reach the Giza pyramids and mingle with the thousands of worldwide tourists who visit the site daily. This fact contributes largely to the distortion of the mutual understanding between different communities.

From a Lynchian perspective, the imposition of physical boundaries, artificial edges, forced paths and the overlapping of urban patterns alien to the local ways of settlement can indirectly alter the traditional relationship between the space and its perception.

A weakening in the 'imageability' of the urban elements is produced, and then a constrained limitation of its collective image. The possibility/need for a reference system identifying individual or community membership gradually disappears, leaving the field to the plethora of globalized signs and meanings, mainly with advertising purposes.

Re-appropriation of Urban Space

The metropolis is managed offering imperfect and simplistic solutions to very complex issues, as housing, transport, waste management, services and public spaces. Governance and participation in the formal mechanisms of metropolitan life are limited: however, while the most disadvantaged social groups are marginalized, the urban management is strongly supported by their contribution. As an example, the international companies holding the solid waste management are unable to perform the service in historical districts and suburbs, where only the co-operation with the *zabaleens'* corporations makes it possible. Despite their absurd life conditions in ghettoized living spaces, along with the enormous distances to be covered everyday, the garbage collectors offer a recycling up to 85% of the collected materials (Fahmi, 2004).

The disadvantaged social groups react to this imbalance with a set of informal spatial re-appropriations, that can be classified in two main categories depending on the kind of transformation of the urban space: structural and permanent or occasional and temporary.

Permanent transformations

In the first category, we can find changes made in order to provide housing solutions: the occupation of public land or the illegal building on private plots with former different land-use. The production of buildings follows the specific rules of the informal market, which includes the involvement of professionals specialized in lotting and construction (fig. 5).

Figure 5. Bulaq al-Dakrur. A non-built sector let see the typical concrete skeleton on the buildings' backside. Source: Authors, 2006.

The informal builders shape the urban space according to patterns derived from the self-organization of the local community and clearly related to the vernacular origin of the settlements. This is especially noticeable in the design of roadways distributing the houses; in the relationship between public and private spaces; in the spontaneous insertion of collective functions, as commercial, entertainment, or prayer places.

In the past, the Cairene road network was strongly hierarchical and specialized, different morphologies corresponding to different functions. Today, in informal areas on desert land (such as Manshiet Nasser), the roads follow the site orography sinuously and organically (fig. 6). In ZSU on ex-agricultural land (such as Bulaq al-Dakrur), the road layout has a rather firm regularity, replicating the former irrigation network (fig. 7). In both cases, the hierarchical organization persists evidently.

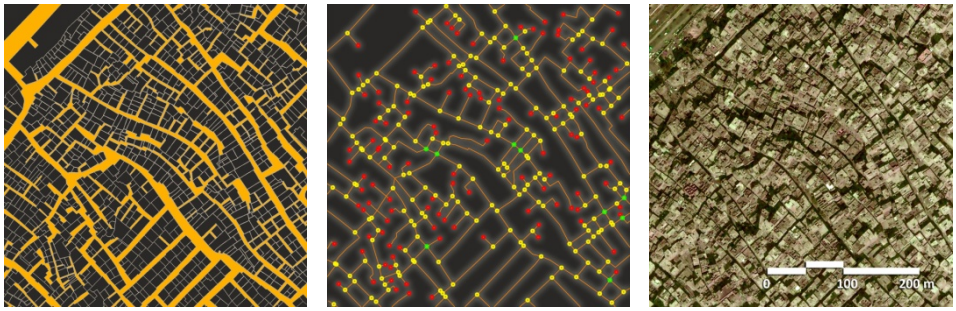

Figure 6. Manshiet Nasser. Urban fabric and street network layout. Source: Authors, 2011.

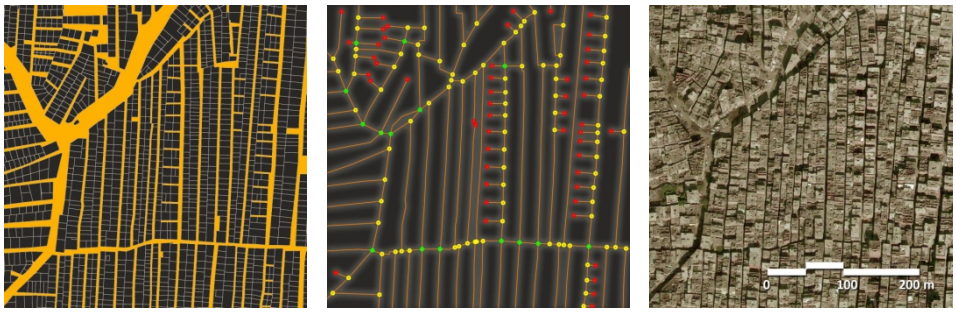

Figure 7. Bulaq al-Dakrur. Urban fabric and street network layout. Source: Authors, 2011.

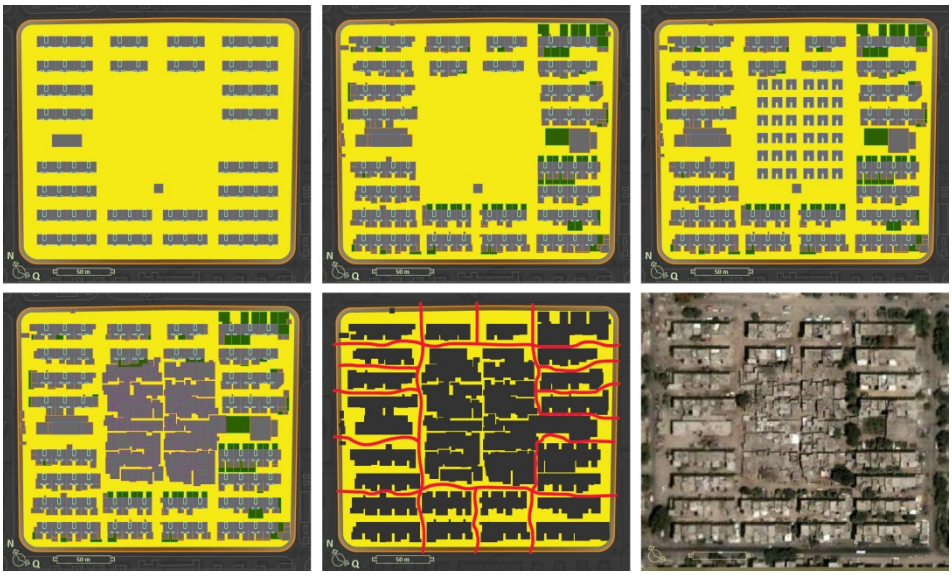

Figure 8. 'Ain al-Sirah Phases of the spontaneous process of space occupation, generating a complex paths layout. Source: Authors, 2006.

Moreover, some distinguishing features, such as the impasse or the *sqifa* (zigzagging entrance path), away from an idea of modern efficiency of the street layout, occur more frequently than in the historic city. In the colonial city and in planned districts (e.g. Downtown and 'Ain al-Sirah), the accretions added to the original buildings, hosting extension residential or commercial space, leave a residual system of inland streets.

Such twisted passages reproduce the originating mechanism of the ancient road network: a progressive land occupation based on the relationship between private property and boundary expressed by the traditional legal concept of *fina* (fig. 8).
The plan and section of the streets point out the typical shapes present in the historical area. Climate is one of the main factors determining the characteristic appearance of the vernacular urban fabric: the intensity of the solar radiation determines the narrowing of the street section respect to the height of lateral buildings, helping the almost total coverage by a wide range of shadowing devices.

Figure 9. Bulaq al-Dakrur. The urban sections show the peculiar space morphology generated by the system of secondary roads between two ranks of buildings. Source: Authors, 2006.

Today, very small street sections in Bulaq al-Dakrur; buildings with projecting upper floors in Manshiet Nasser; shields, made of recovered materials, protecting the windows and balconies in planned districts, perform the identical function (fig. 9).
The settling model is directly related also to the relationship between public and private spaces, which in the traditional city influenced the organization of the urban fabric (Raymond, 1989). Such relation is resolved in different ways determining the use of shared space, through specific architectural and urban solutions.
We can distinguish a functional distinction between a mainly public area, where the major business, cultural and religious activities are concentrated; and a more reserved area, corresponding to the interior of the traditional neighbourhood (*harat*). With a range of subtle shades, this relation is repeated within the *harat*, where inner space is subjected to a collective control and the privacy allows the customary family life. The architectural elements historically marking the transition between different areas (city gates, neighbourhoods gates, *sqifas*, inconstant road section) are replaced today by ephemeral and less encoded signs, however designed for the same protective and identifying purpose.

Spiritual, cultural, social, economic and health relationships existed between the traditiional *harat* and the city, relating the neighbourhood community life with surrounding communities first and the town community life then (al-Messiri, 1979; Berardi, 1979; Raymond, 1980). The arrangement of the contemporary urban fabrics doesn't allow urban structures physically equivalent to the *harat*. Nevertheless, there remain vernacular ways to use and to organize the local spaces borrowing their basic social characters from the traditional neighbourhood.
The hierarchical and functional subdivision of space is repeated in the organization of businesses and crafts. Caravanserais and other representative buildings hosting old mercantile activities are disappearing, often replaced by city malls that, in some ways, inherit their original function. The distribution and morphology of the historical commercial structures (*suk, wakala*, *qasaba*) are repeated, by organizing the informal economy activities along the streets of neighbourhoods according to prestige and specialty.

Figure 10. Bulaq al-Dakrur. An irregularity in the continuity of the street pattern emphasizes the presence of a little mosque, providing some outdoor space and an optical cone targeted on the loudspeaker-minaret. Source: Authors, 2006.

Another strong analogy with the fabric of the historic city lies in the role played by mosques and prayer spaces. The traditional spatial organization focused on buildings related to the cult (al-Harithy, 1993). The mosque was used to gather citizenship in prayer, to manage political and administrative issues, to impart scholastic education. The mosque continues occupying a significant position, with outdoor spaces for prayer and fountains for ablutions, and benefitting pockets and optical cones in the road network to emphasize the entrance or the minaret (Grabar, 1979) (fig. 10).
In the informal city, the mosque continues to attract and concentrate the faithful regularly, so it is still a catalyst point identifying the local community. Although limited to little surfaces and volumes, the religious sites frequently coincide with the points of greatest visibility and vitality of the districts; the combination of mosque and nearby market, typical in the historic city, is often repeated. Sometimes, far and away from the major hectic streets, the mosque and its outdoor spaces create a break in the dense built tissue, suited to relax and meditation.
In the unplanned districts, those quiet places are very important due to the unavailability of public parks and entertainment venues.

This fact triggers also the spontaneous emergence of smaller expedients intended to offer play and recreation equipment: coffee shops, political or sporting clubs, children playground hosting swings and roundabouts built with reuse materials. Other informal activities are present in pleasant places, as the Nile Corniches. Normally, the wider audience is deprived of such meaningful spaces, reduced to being a coated frame for luxury hotels lined up on the Corniches. So minimal abusive cafeterias and eateries are scattered along the riverbanks or invade also the smallest spaces, as the pedestrian outbuildings of the bridges. These improvised facilities make more pleasant the evening stroll in the large cut opened by the Nile in the compactness of the built environment, where the atmosphere is cooler and less smoggy.

Figure 11. Wooden pigeon house towers on the roofs of the informal and formal city. Source: Authors, 2006.

The erection of pigeon house towers represents a meaningful appropriation of the airspace (fig. 11). Pigeons' breeding poses a relevant additional income for many Cairene families. The towers are generally made of reuse wood, with a lattice structure supporting the breeding room that is accessed by a ladder. The practice of rearing pigeons is well established and over time the towers' builders have improved construction techniques and decorative styles. Although the towers can be found more frequently in ZSU, they often are erected informally on the roofs of historic and modern buildings. The spread of the pigeon house towers shows how a spontaneously organized activity, with the implicit collective consensus, can characterize the cityscape with encoded elements, by restoring the identity of marginalized sites.

Temporary transformations

In the category of temporary spatial appropriations, we can list the effects of behaviours adopted during special moments related to religion and neighbourhood life. During the Ramadan; the Eid ul-Adha; weddings and funerals; electoral and political events; the common area of the neighbourhood streets is occupied by dedicated structures and activities.

The Ramadan month is emblematic: urban space is thoroughly reviewed by local communities to fulfil several functions. Large green carpets, carefully kept in small warehouses, are deployed on the ground along the sidewalks or in the halls of buildings to accommodate the crowd engaged in collective prayer. Just before sunset, the common refectories for the interruption of daytime fasting are basted. Residents and passenger diners have free access. Shared spaces and premises are provided to cook meals and to store tables and chairs.

During the great festival of Eid ul-Adha, for the sheep sacrifice, the roadway is filled with benches for slaughtering, meat distribution and sale of skins. Animals' blood is collected in pools on the ground or used to mark with the blessing *Hamsa* homes, cars and aprons of children.
On those events, big colourful tents with traditional décor cover the streets; other private tents are reserved for families and groups (fig. 12). Textile structures are also used to define and indicate spaces reserved for specific activities, such as celebrating a marriage with singing and dancing or visiting relatives for a funeral. The same folkloric appearance is adopted in historic districts, in planned areas and in ZSU: spaces offered by very different urban fabrics are readjusted to patterns of ancient origin, conserving the original city image in popular imagination.

Figure 12. 'Ain al-Sirah. Celebrative tents in the streets. Source: Authors, 2006.

The official transportation network, unable to cope with the enormous sprawl of the metropolitan area, is cause of another kind of temporary appropriation. A parallel informal network of collective transport, privately managed, is required to reach anywhere in the city at any time, by using vehicles suited to each kind of trip (minibus, pick-ups, jeeps, taxis). This is particularly due to the conditions of roads in ZSU, where narrow sections, lack of pavement and steep slopes prevent access by regular bus or taxi. Generally, the unofficial bus stops are created spontaneously in high demand points, such as the outputs of the informal settlements and contact points with the public transport network. They are not indicated: but, by being commonly known and daily used, they rapidly consolidate, resulting in permanent or periodic road occupations. The final destination of the vehicles is easily recognizable by paying attention to the information shouted by the drivers' assistants. The prices are not arbitrary but regularly depend from travelled distances. This network could be seen as an evolution of the traditional system of the medieval and Ottoman guilds engaged in transporting goods and people.

Spontaneity and tradition provide options for urban management

Since the founding until the 19th century, the Cairene urban structure was made by a slow sedimentation process, adapting previous urban models to population growth and surface expansion (Raymond, 1993). The French conquest marked a turning point, starting the period of interference of colonial powers and giving way to the urban transformation, which resulted in the creation of a new city separate from and opposed to the original one.

In the 20th century, population growth and the import of exogenous cultural and economic models have given to the development dizzying acceleration (Serageldin, 2000) producing, in a hundred years, a metropolis made up of heterogeneous urban realities, placed side by side and intended to sub-integrated communities.
In this frame, the traditional urban fabric is threatened, and its progressive disappearance involves the risk of permanent destruction of behavioural patterns related to it. In the exemplary case of the *hammam*, the physical preservation difficulties and the current availability of sanitation in modern houses have limited the people attendance at public baths to the more rooted festivities (Escudié, 1992).
However, while some aspects of the traditional city life are on the brink of oblivion, informality offers to others the chance to consolidate. The re-appropriation of urban spaces generates new vernacular relationships between urban context and citizen's behaviours, by improving the everyday habitat and facing the needs of the poorest population. The links with the dynamics of the historical city are strong: the traditional and Islamic cultural matrix plays a key role, correlating the informal vernacular with ancient settling patterns more than with today's internationalized dimension of Cairo.
The intensity of these actions is likely to change morphologically spaces, which prove inappropriate because thought and designed for an alien way of life (Salama, 1994; Sibley-Behloul, 2002; Rahman, 2004). Also the planned districts, such as the downtown or the public housing, undergo a physical change of the built environment to adapt to initially unforeseen needs. Morphological transformations are accompanied by functional changes: the hawkers crowd the trade hubs between districts; shops occupy the basement and the ground floor of buildings; portions of streets are subtracted from normal use with ephemeral fencing and reserved to prayer by local users; informal markets and recreational places arise everywhere. Moreover, some elements of urban management, which in Western cities are a prerogative of the public, in Cairo are organized spontaneously on the basis of ancient customs. Finally, the urban space assumes new meanings belonging to a not recognized, but highly recognizable, system of shared rules, in many respects related to the traditional symbolic structure.
An insurgent spatiality creates new vernacular habitats: a whole new city, lying around the official one, is inhabited by thousands of people who no longer have access to a normality that has become a privilege. The informal city is self-regulated and self-organized, and appears as a Lefebvrian *contre-espace*. Here, the social identity is reaffirmed, finding new opportunities of expression. In these cases it is therefore a strong social structure that creates, in its own image, a new habitat or modifies the one in which it is embedded.
The inexistence of a formal urban management system is a constant in Cairene history. Cairo never had a public administration before the modern epoch, and the rulers were supported by the capabilities of neighbourhood communities and craft guilds gathering the whole population (Baer, 1964). Today, the formal urban management is unable to recreate the synergy of the past, continuing with the top-down transfer of globalized planning models and trying to exclude the spontaneity from the production of urban space. Despite the expansion of informality seems unstoppable, until now government bodies didn't considered the deep assessment of its potential; it contributes to wasting resources in disappointing urban programs (Ghannam, 2002) and to hindering the possibility of an integrated action by the associations. Instead, the management capacity of public agencies should join the abilities residing in the spontaneous social organization. Cairo offers many examples of NGO's aiming to enhance the action of small communities forced to act retrospectively on consolidated problems (Oldham et al., 1987; Déboulet, 1994). A phase of knowledge and involvement of citizens should support the interventions in informal urbanizations, lowering the efforts and costs necessary to improvement.

Some *zabaleen* groups were recently integrated into the official solid waste collection, providing them with special recycling plants (Dollet, 2002). This example could lead to resolve other problematic issues, such as the difficult and costly implementation of water supply networks in ZSU, by strengthening the distribution points connected to mosques and by reorganizing the work of informal water vendors. Similarly, the *sabils*, that are monumental fountains-tanks with a strong social significance (Raymond, 1979; Mostafa, 1989), could be returned to their original distribution function, through technological update and the empowerment of local communities for their management. This will appear not utopian, considering that only forty years ago, several *sabils* structures were still active and currently certain *hammams* are still used by people if their conditions permit. Effectiveness and operability depend on the possibility to disengage from the dynamics of powerful economic interests on the historic areas, and the launching of pilot projects could be important.

The inhabitants of Cairo have inherited a strong sense of community from the traditional social organization: local identity and self-management capability should be seen as a resource to face the challenge of the globalized metropolis (Paloscia, 2007). Hence, through participation, informality could acquire not only practical, but also cultural, value on which strategic guidelines can be defined for the heritage preservation and the upgrading of informal settlements.

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