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THE COURTYARD IN CAIRENE TRADITIONAL HOUSES: A TERRITORIAL DISPUTE, GAME OF SPACES GEOMETRY AND LIGHT

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ABSTRACT

The courtyard lost its role in contemporary Egyptian architecture. Despite its importance in the family social life, the western model of the villa and townhouse is adopted. The author argues that presenting the courtyard as a climatic solution only is inaccurate in introducing the courtyard to local urbanism. The study adopted qualitative and quantitative approaches, collecting historic courtvards houses in Cairo analyzing their courtvard form, geometry, and introductory spatial sequences. Related literature was reviewed for collecting data and introducing criteria. The study sample analysis proved the strong relationship between the spatial territoriality, the house transition zone, the public right to assert the order of their built environment (through collective deliberation) and other forces, which are of great importance to the courtyard role and meanings.

KEYWORDS:

Islamic Architecture; The Courtyard; Islamic Cairo; Territoriality; Introverted Architecture

INTRODUCTION

Theoretically, the courtyard house is one of the oldest housing types in human history [1]. Ancient Egyptian drawings show the courtyard house, among other residential types. It is difficult to determine whether the Egyptians draw them from their imagination of the afterlife or present existing structures [2] (Figure 1). Ancient Egyptian towns and villages were mainly ruined or vanished under seasonal Nile floods and successive constructions [3]. Courtyards' archaeological evidence, however, was found in monumental structures such as Akhenaton's royal palaces and ancient Egyptian temples (Figure 2).

Several courtyard houses were discovered in el-Fustat. El-Fustat is the earliest Moslem-Arabic settlement built in Egypt after defeating the Roman army in Alexandria by Amr ibn el-Ass in 640 AD. El-Fustat archaeological findings [4]–[6] showed a very dense urban environment and irregularity in its urban form with a tendency for creating regular architectural indoor spaces (Figure 3). The courtyard is found in the earliest Muslim architecture in Egypt, Amar ibn el-Ass's Mosque in Fustat. The mosque's footprint adopted a simple rectangular shape with a vast rectangular courtyard. The courtyard is surrounded by rows of columns brought from older structures, and the mosque entrance is direct and open to the courtyard.

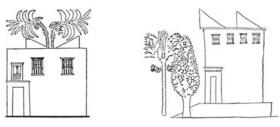


Figure 1. The Courtyard House in Ancient Egyptian Architecture

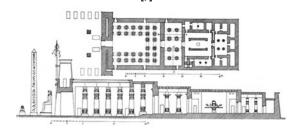


Figure 2. The Ancient Egyptian Temple's Courtyard [8]

Historic Cairo (1200-1800) traditional architecture adopted the courtyard as a significant architectural component until the second half of the 17th century. The courtyard was a common architectural component in public multi-functional buildings, mosques, wekalah (merchants' hotel) and high-income houses. By the 14th century, several Cairo traditional prominent buildings witnessed

transformation of their courtyards into Dorqa'ah (a doubled-height indoor covered space). Ahmed Fekry argued that such transformation is due to economic forces and the unavailability of large building lots in the city [9], [10].



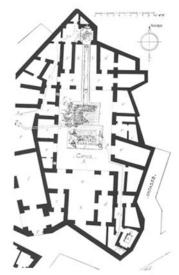


Figure 3. The courtyard House in el-Fustat [5]

The French engineers of Napoleon's army documented hundreds of one-family houses in Cairo. But, unfortunately, among all courtyard houses recorded in the Description de l'Egypte [11], only 17 courtyard houses were documented in the 20th century by the IFAO (Institut français d'archeologie oriental) [12], among which one house with an outdoor courtyard, three courtyard houses were ruined in the last decades, and two are in an awful condition to be studied.

HYPOTHESIS, AIM AND RESEARCH METHODS

The author argues that the courtyard role is not limited to its climatic behaviour, and its meaning is undetachable from the urban public power and collective deliberations. This study investigates the meanings and role of the residential courtyard in historic Cairo. A qualitative and quantitative approach is implemented by collecting Cairo's existing historic courtyard houses. Related literature investigating the courtyard meaning is reviewed, and the collected

sample is analysed according to the courtyard's shape, orientation, geometric regularity, and introductory spatial sequence. Furthermore, the need to comprehend the courtyard meanings imposed a study of the spatial territorialities in historic Cairo.

The Cairene Courtyard In The Traditional House

The traditional Cairene inner courtyard is open to the sky and physically enclosed from all sides (Figure 4). Residential spaces are directly connected to the inner courtyard without any intermediate space, such as the corridor in the traditional Greek house. The courtyard might be the house's focal point that strengthens the inter-relationship of the family members [13, p. 1]. The courtyard might serve different functions. It might be helpful in climatic control, social activities, architectural solution to site conditions and/ or as an aesthetic provider. Cairo lies in the hot arid zone; the dry, low rainfall characterises it. It is warm and rainy in winter and hot and dry in summer [14, p. 6]. The prevailing cool breeze blows from the north to the northwest. Such characteristics were introduced as the courtyard design generators.

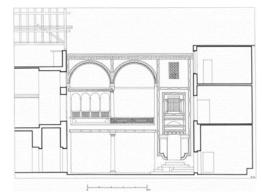


Figure 4. A Section through a Courtyard House [15]

courtyard is rarely adopted contemporary Cairo despite its functionality, aesthetic values [16], [17], and environmental resilience [13], [18]. It might be used in students' academic work to maintain local identity in historic urban renewal and development projects. Losing the traditional courtyard is related to forces other than the climate. The many advantages of the inner courtyard failed to motivate modern Egyptian architects. Few Egyptian architects adopted the courtyard in their projects but mostly in public buildings. Even in the Gulf countries, where the traditional white outfit (Thoub) is still used to symbolise the local Arabic cultural appearance, the courtyard house is ignored in favour of the villa. The courtyard house became a part of the must-forget past. Shihub argued that the great school of traditional architectural design and technique could not respond

to the quick changes in society and the requirements of modern life due to the construction boom [19, p. 517]. Nevertheless, the urban boom cannot be the cause of the neglect of Egypt's traditional courtyard.

The author determined 17 traditional houses in Cairo, among which three are from the second Mamluk era (1383-1517) and 14 from the Ottoman era (1517-1820). The Mamluk era was presented in the house 1; Qayt-bay, house 2; el-Razaz, and house 3; Zeinab Khatun. House 4; el-Suhamy, house 5; Mostafa Ga'afar, house 6; el-Mola, house 7; el-set Wassila, house 8; el-Harawy, house 9; el-Senary, house 10; el-Shabshiry, house 11; Amna bent Salem, house 12; el-kiritlyia, house 13; Redwan Bek, house 14; el-Sadat, house 15; Ali Labieb, house 16; Ali Katkhuda, and house 17; el-Dahaby are from the Ottoman era (Figures 5 and 6). It should be noted that the author found no drawings for house number 17.

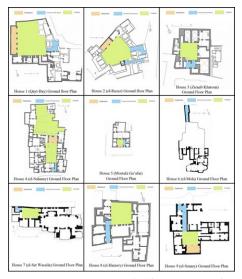


Figure 5. The Courtyards and the Significant Element of the Cairene's House (the study sample part one) [the author]

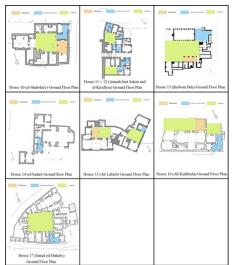


Figure 6. The Courtyards and the Significant Element of the Cairene's House (the study sample part two) [the author]

The 17 traditional courtyard houses in Cairo suggest a strong relationship between the courtyard and the economic status of the house owner. Very high -income owners such as house 4; el-Suhamy, and house 1; Qayt-bay presented large building lots and two large courtyards. Other lower income levels presented one or two small courtyard(s) such as in house 15; Ali Labib. Furthermore, middle-income and Artisans' houses (el-Raba'a) showed no evidence of the courtyard. Instead, their courtyard was transformed into a double-heightindoor space [20], which inspired Le Corbusier's Marseille Duplex, France. House 4; el-Suhamy owner was a wealthy Egyptian merchant and a trade-master 'Sheikh el-Tugar'. His commercial relations and activities were extensive and specialised in selling the most profitable goods such as Spices, Tobacco, Coffee, and Silk. His courtyard house still exists in perfect condition and presents one of Cairo's most luxurious traditional mansions. House (1) belonged to Qayt-bay, a Mamluk prince, a military leader of the Mamluk army, and later became a Sultan and moved to the sultan palace in the city citadel. House (4) presented the immense courtyard and house 5; Mostafa Ga'afar, the minor building lot in the study sample. Whether the two-courtyards solution in the house 15; Ali Labib is due to the building lot shape, the owner's needs, or the architect's skills in manipulating its form is unclear.



Figure 7. The Bent Entrance in Three Courtyard houses (from left to right): 10; el-Shabshiry, 11; Aman Bint Salem and 12; el-Kiritlyia [15] [edited by the author]

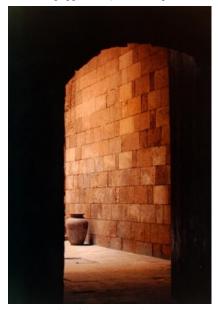


Figure 8. The End Point of the Bent Corridor; House 12; el-Kiritlyia [the author]



Figure 9. Seeing the Courtyard, House 15; Ali Labieb [the author]

In thirteen cases, the inner courtyard must be accessed via a transition zone; an external door, an entrance lobby, a second door, and a bent linear space consisting of two perpendicular corridors (Figure 7). The inner courtyard can only be seen if the guest reaches the end of the bent corridors. The visual and spatial sequence is quite enjoyable and rich, but accessing the courtyard is an entirely different experience; it is like receiving the welcome reward, the basket of fruits and chocolates in a five-star hotel room. After accessing the second part of the bent corridor, viewing the courtyard generates a lovely surprise (Figures 8 and 9). The tranquillity, birds' chanting, greenery, the sound of the running water in the courtyard's fountain and the architectural richness of the inner façades are the family, close friends' and guests' reward. The courtyard provides different seating opportunities introducing various experiences and hospitality levels. For example, salespersons and street vendors are only welcomed in the entrance lobby, where a seating area is presented; they cannot see the courtyard or access the bent corridor.

Accessing the courtyard is the second stage of the owner's hospitality; co-workers and friends are welcome into the 'Takhtabush'. It is a pleasant seating open area in the courtyard and on the ground floor (Figure 10). Closer friends and family relatives are invited into other seating areas. In summer, they are welcome into an open seating area -a loggia like- called Maqa'ad on the first floor (Figure 11). In winter, they are welcome into a closed seating area called the Qa'ah (Figure 12). They both overlook the courtyard,

but the second one is via a lattice-wooden window or a Mashrabeyiah. While the Takhtabush has a seating bench, the Maga'ad and Qa'ah have the most luxurious furniture the owner can afford. The Maga'ad might be the reflection of the owner's socio-cultural status and relationship. Constructing separated Maqa'ads by the Mamluk princes, judges, and prominent persons might help to understand its unavailability in several traditional houses in Cairo.



Figure 10. The Takhtabush in House 4; el-Suhamy [the author]



Figure 11. The Maqa'ad in House 4; el-Suhamy [the author]

The sound of the running water in the courtyard fountain is much quieter than the European Renaissance fountain; water flows softly, increasing the courtyard's tranquillity. Wild birds are attracted to the greenery and water in the courtyard; their chanting adds another acoustic dimension to the courtyard's value. Even after cutting through the traditional dense fabric of historic Cairo by motorised traffic roads -with all the noise it generates- the courtyard still maintains its tranquillity.



Figure 12. The Courtyard and Qa'a in House 4; el-Suhamy [the editor]

The traditional houses presented four significant architectural components related to the courtyard: a transition zone, a Takhtabush, a Maga'ad, and several Qa'a, reflecting different socio-cultural values and seasonal uses (see Figures 5 and 6). The Takhtabush is not a dominant element in the study sample; still, it adopted different natural orientations; South, West, and East. While it is interesting to notice that none of the Takhtabushes faced the prevailing cool breeze, all Maqa'ads faced the North to North-West direction. The Maqa'ad demonstrated an added social hospitality value to its aesthetic dimension by facing the prevailing cool breeze.

The Courtyard Footprint

Courtyard geometric regularity seems a common feature in most cases, but geometric semiregularity also exists. Historic Cairo's courtyards presented various primary geometric shapes; square, rectangular, and trapezoidal. However, the overwhelming impression is that the square shape might have been more favoured still the sample size prevents creating an accurate decision (Figures 13, 14 and 15). The ruined condition and disappearance of hundreds of traditional houses in Cairo prevent accurately creating a quantitative inventory for courtyard shapes.



Figure 13. The Courtyard Geometric Shape in the Study Sample (part one: the square shape)

[edited by the author]

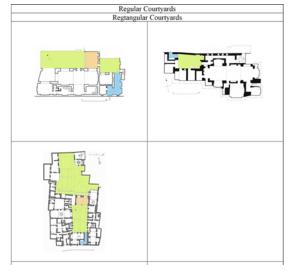


Figure 14. The Courtyard Geometric Shape in the Study Sample (part two: the rectangle) [edited by the author]

Despite the small sample, courtyards showed various shapes, positions, and orientations. Houses 1 and 7; el-set Wassila showed adjacent-to-the-street courtyards. Others showed adjacent-to-the-neighbour or eccentric courtyards. The adjacent-to-the-neighbour courtyard might be seen as logical to allow light and ventilation in the non-setback building, but being adjacent to the street might impose the question about the

design meaning of the courtyard isolation from the street with a solid brick wall (Figures 16 and 17).

Irregular Courtyards

Figure 15. Regularity of the Courtyard in the Study Sample (part Three; irregular shapes) [edited by the author]



Figure 16. The Courtyard position in the Study Sample (part one; centric) [edited by the author]

The Courtyard Softscape

The existence of greenery in the public sphere must have raised concern about its maintenance and control. The merchants, artisans, judges, and Mohtasib (the urban controller) were not responsible for greenery maintenance since none had the right to control it, and it was expensive to maintain. Nevertheless, shading the street is vital for commercial activities; thus, merchants and artisans covered the street with a lower maintenance material; wood or textiles. In a very harsh environment, natural greenery and water are expensive to be introduced in the city.

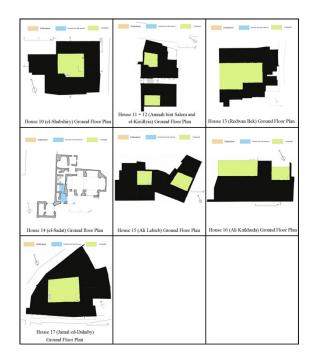


Figure 17. The Courtyard position in the Study Sample (part two; eccentric) [edited by the author]

The greenery and the water fountain inside the courtyard present a celebrative value (Figure 18). It is difficult to determine the original status of the courtyard landscape in the traditional house; today's authentic landscape status is disputable since various inaccurate renovations took place. Unfortunately, the French engineers could not document the Cairene house's indoor landscape due to local community social restrictions. However, the French officers who confiscated courtyard houses during their occupation showed a more straightforward landscape design than the Andalusian indoor garden; few trees, a fountain, and grace. Maher Laffah described the el-Suhamy garden (house (4) in its current existing status as if it were in its original condition (see Figures 11 and 12).

Furthermore, he stressed the geometric landscape of the Arab traditional house [21, p. 211]. Using el-Hambra as a landscape reference for indoor gardens in Cairo might not be accurate. El-Hambra in Andalusia was a Calif castle, and there is a cultural difference between the celebrative attitude of the Andalusian architecture and the Egyptian. The el-Hambra's building lot area is much larger than the house (1) and (4) combined. It would be unlogic to compare the Andalusian courtyard with Cairene's courtyard house. Economic, political, and cultural factors must be taken into consideration.

Cairene historians and geographers mentioned an entertainment type called 'Bustan' [22]-[24]. The French engineers of the Napoleon army also described the same type. The Bustan is an open agricultural-like area planted with fruit and palm trees. The area is virgin without any pavement or landscaping; it was primely used for family entertainment and not for economic purposes. Thus, determining the authenticity of the courtyard landscape needs further in-depth studies; maybe it followed a geometric form or the Bustan's simple and natural organic form.

The attitude of minimising the public space favouring the private [25] created an urban motive for generating a dense urban fabric and an introverted house design. However, greenery and water must have been significant in Cairo residents' daily life. Residents enjoyed both of them either outside the city or in courtyards. It can be argued that the unavailability of irrigation water and the harsh weather are responsible for such a phenomenon. Nevertheless, such a phenomenon created a fascinating contrast between street dusty and noisy conditions and the courtyard's greenery and tranquillity.



Figure 18. The Courtyard's Landscaping in a Mosque; The Blue **Mosque, Cairo** [the author]

The Cairene Traditional Courtyard's Symbolic Meanings

Architectural and urban components carry socio-cultural, economic, and political codes. Spatial coding plays a significant role in identifying the symbolic meanings of the courtyard [26, p. 838]. Decoding the courtyard's symbolic meanings should help comprehend its physical and non-physical meanings. While the high-income classes should not face economic difficulty in adopting the courtyard, it is believed that the courtyard was not a typical element in the traditional middle- and low-income houses in Cairo [27].

However, the courtyard house is a potent model of the complex relationships between function and symbol [28, p. 316]. The courtyard in traditional Cairene houses might have responded to various physical and non-physical forces. Whether the climatic conditions, the architect's skills in manipulating forms, or the social values are considered governing forces is debatable. The building lot conditions might also have an impact on the courtyard shape. The courtyard is necessary for the house developers to build on the edge of their building lot without setbacks [29, p. 1]. The architect's design manipulation skills might have affected the courtyard shape, and architects might respond differently to the construction conditions and owner requirements. Various explanations are introduced for the courtyard adaptation. Soflaeia [30] argued that the square-shaped courtyard presents better thermal performance than the rectangular. Wazeri [18, p. 171] considered direct solar radiation the most significant climatic influence on housing design after investigating three houses' inner courtyards in deducing the solar radiation's effect. Al-Kubaisy argued that the courtyard house dominated the Arab world, and its design is driven by two significant forces; family social privacy and the harsh climate. However, courtyards are found in different parts of the world; it is not inclusive to the Arab world [29, p. 9]. The courtyard's existence in cold countries such as Germany, France, and Austria doubts its climate role in harsh and hot weather.

The introverted design of the courtyard house provides social enjoyment freedom and minimise exterior noise [14]. The study of the traditional courtyard house indicates an excellent solution for environmental, economic, social, and cultural sustainability [31, p. 533]. The courtyard delivers if a family house arrangement consists of construction and vegetation parts [32, p. 523].

The Transition Zone

Prominent traditional houses in Cairo and multifunctional buildings of the pre-Ottoman eras promoted the inner courtyard still, it should be considered with its relationship to the introductory sequence. The house bent entrance or transition zone in historic Cairo is regarded as a means of protecting the family's private social life [33]; however, its presence in multifunctional public buildings must have reflected other objectives rather than social privacy. The transition zone in both the house and the public building, the tranquillity of the courtyard, its greenery, and the courtyard's geometric regularity verse the outdoor geometric identity created our storyboard. Twelve courtyards in our study sample were perfectly regular; however, three adopted a slight irregularity. According to the rules of human perception [34]–[36], even those slightly irregular courtyards might have been seen as regular spaces generating experiences and memories [37].

Constructing our courtyard experience in a sequential system is vital. The courtyard perception cannot be isolated from its introductory experiences. Curran and Cullen argued that the human mind constructs its urban and architectural experiences during the observer's movement in space [38], [39]. A sequential scenario might help comprehend the courtyard's symbolic meanings. Historic Cairo's major streets were narrow (6-12 m), noisy, dusty, greenery free, crowded and sunny. The residential street is shady, narrower (2-4 m), and its spaces are irregular and greenery free (see Figure 19).

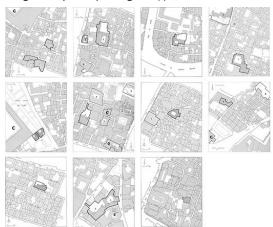


Figure 19. The Urban Context of the Study Sample [40]

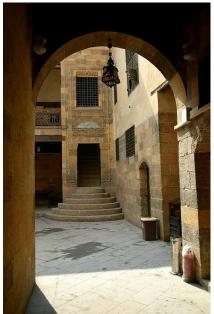


Figure 20. House 2; el-Razaz's Courtyard [the author]

Leaving the major city streets, accessing the residential cluster gate, moving in its streets, crossing the house's external door, through the entrance lobby, across the inner door, through the bent corridors and to the courtyard might be a carefully designed storyboard. Our interchange point from the major city streets to the residential streets introduces us to the house transition zone and courtyard experiences. Accessing the house entrance lobby creates a welcoming experience, and ending our travel with the greenery, the water fountain, the birds chanting, and the richness of the inner courtyard is our trip to Crescendo (see Figures 8 and 9). By arriving in the second part of the dark narrow, bent corridor, the courtyard's light shining at the corridor's end creates a celebrative introduction maximising the impact of the courtyard (Figure 20). Our storyboard's last image is the courtyard, with tranquillity and architectural richness. Despite its small area, the transition zone plays a significant role in the courtyard perception.

The Game Of Spaces, Form Manipulation And Light

Historic Cairo geometric identities presented three significant spatial articulations' qualities. A semiirregular geometric identity is adopted in the public domain, and in the citadel area (the political seat of Egypt), a highly regular geometric identity is constructed. A highly irregular geometric identity is imposed in the city's private domain (the residential clusters) [37]. It was argued that the urban power network level and its deliberation quality significantly impact various spatial identities in the same city [41]. Furthermore, the tendency to create highly regular indoor space can be traced along with Cairo history and significant structures, such as public and residential buildings. A spatial contrast between indoor and outdoor spaces seems aware of decisions and intentions; it reflects the urban power network type and level [42].

The architectural form manipulation is constructed from geometric irregularity and regularity and can be easily identified in historic Cairo. The study sample creates the impression of putting the courtyard in the architect's attention as a design priority. However, two cases brought the courtyard as a second or third priority as the Qa'a, Maqa'ad, and Takhtabush are brought to the architect's primary concerns; the courtyard can be semi-regular to ensure their high geometric quality. The owner's requirements or the building lot might have affected the architect's decisions in arranging and rearranging his design priorities.

The game of spaces in the courtyard house was not limited to the spatial relationship: indoor-outdoor, significant spaces overlooking the courtyard presented

accessibility in various degrees. While visual and motor accessibility is adopted between the courtyard and Takhtabush, the Maga'ad developed visual accessibility, and the winter Qa'a presented semi-visual accessibility (Figure 21). The Maga'ad and Qa'a adopted a lower degree of motor accessibility by placing them on the first floor.

Insufficient lighting is introduced in the house entrance lobby; a small clear-story window is constructed over the entrance door. The bent corridor is vaguely illuminated or flows in darkness. Darkness is used in the transition zone to block visual accessibility further. The dark bent corridor with the light at its end (shining from the courtyard) emphasises hope and semi-visual accessibility (see Figure 8). Accessing the courtyard after the dark corridor symbolises hospitality and creates a pleasant surprise (see Figure 12). The game played with spaces, geometry, light, and darkness create a well-constructed spatial sequence playing on the visitor's psycho-motor dimension.



Figure 21. Seeing through the Lattice Window (Mashrabeyiah), House 4; el-Suhamy [the author]

The Cairene Traditional House Introverted Design And The Spatial Territoriality

Historic Cairo presented three territorialities; the public, the secondary, and the private [43], [44]. The identity of the public territory in historic Cairo is created due to spatial articulation, geometric identity, visual and motor accessibility, and land uses. The public territorial identity is constructed through a deliberative and cumulative process by the merchants and artisans. They had the right to assert the order of their places under a collective deliberation process that respected its publicness [23], [45], [46]. Meanwhile, the juridical system also imposed control over the place, ensuring its publicness [43].

A secondary territorial identity is constructed within the residential clusters or the city's private domain. The cluster residents had to respect a collective deliberation process in asserting the order of their built environment. Every physical change had to go through a collective deliberation to be implemented; still, specific building rules had to be respected; otherwise, the juridical system interferes when complained. Since external architectural improvement, development, or transformation might affect the neighbours, the house owner had to negotiate to harvest their approvals. The secondary territorial identity is created due to the irregular spatial articulation, geometric irregularity, everchanging placemaking, the residents' socio-cultural patterns and the territorial borderlines [47].

Various forms and qualities of collective deliberation imposed their hidden order on the territorial users. On the one hand, respecting the numerous levels of physical and non-physical forces or players in the urban power networks must have been a significant burden. On the other hand, the house, as a private territory, needed little deliberation between the owner and his neighbours; as long as the social privacy of the neighbouring family is respected, the house owner is free to adapt, modify and impose self-expression courtyard. The introverted design succeeded in minimising the house owner's need for deliberation. The juridical system considered the courtyard a place for family social privacy and prevented anyone from interfering with its creation or development. The family's social privacy was highly respected, and its protection was prioritised over other aspects. Overlooking the courtyard by strangers was strictly prohibited without any exceptions [46], [48], [49].

Ramin Dehbandi and others argued that the entrance is a vital part of the house; it divides territories, a waiting area, a destination, and a pathway [50, p. 161]. Diverse urban territories were separated from one another; the outdoors is carefully isolated from the indoors via the house transition zone and the implementation of the courtyard as a private artificial green environment. The courtyard can be considered a part of the territoriality dispute in historic Cairo; creating the private family garden inside the house eliminated the power negotiation in controlling and maintaining it. Hidden from the traffic, the courtyard was the private territory centre, and accessing it requires the owner's permission even for the city security forces [23], [45], [46]. It can be argued that the courtyard's richness was reserved for the family and their close guest as a sign of private territory. In addition to the indoor facades' richness, substantial indoor spaces' overlooking the courtyard reflected the family social life around their personal and individual territorial center.

Courtyard houses in historic Cairo were located on minor, local, or close-end streets, physically separated from the major city traffic and activities [37], [44]. Therefore, a sequential territoriality hierarchy must be experienced while traveling from the city's public sphere to the inner courtyard, public, secondary, and private territories. Territoriality dispute, social privacy, and the introverted lifestyle might explain the necessity of isolating the adjacent-to-the-street courtyards by a solid brick wall in the case of the house 1.

CONCLUSIONS

By minimising the public space, the traditional urban dense fabric allows the creation of the courtyard house. If the climate were the governing force in creating the traditional courtyard house in Cairo, the indigenous builder would not create different courtyards' forms, orientations, and positions. The courtyards responded to several governing forces, among which territoriality rights, social privacy, enjoyment, hospitality, resilience, and economy are significant.

It is not easy to imagine the courtyard house's revitalisation as long as the modern Cairene urban governance network is still active. The traditional demand was built on an indigenous governance network prioritizing public power over others. Wishing to revitalise the courtyard house as part of the Cairene urban identity requires confronting the conditions and generators in our imported urban models.

The introverted design concept evolved through time and generations' actions in a cumulative process. Keeping one's riches hidden from the public was an objective of the introverted design concept. Such a solution creates the argument that impressing the street passing by was not the issue in traditional Cairene houses.

High-income houses' inner courtyards created the opportunity for greenery enjoyment and tranquillity. Visual and spatial sequences and the game of spaces, form, light, and darkness are among the architect's objectives in adopting the transition zone and introducing the courtyard.

The architect used the transition zone to separate territoriality types and create psychological impacts. The psychological impact played by the architect was coded into the physical structure of the courtyard and its introductory sequence. The traditional architect in historic Cairo succeeded in creating a sense of transition by adapting the territorial and spatial hierarchy.

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