

# The impact of regulations on the typo-morphological transformation of residential buildings in Tehran

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*Revised version received 26 March 2021*

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**Abstract.** *The typo-morphology of residential buildings in Tehran has changed tremendously from the introduction of the first building and urban regulations in the 1950s. This paper explores the role of these regulations in typo-morphological changes, how the internal arrangement and building form of residential architecture were shaped, and the nature and extent of how the layouts were influenced by building and urban regulations. A morphological and typological analysis of residential buildings was carried out and validated by in-depth interviews. The regulations with the greatest effect on typo-morphological changes include the land subdivision system, the occupancy level code, parking regulations, staircase and elevator requirements and daylight access such as patio spaces. This research also identifies issues for policy-makers to consider in any review of the building and urban regulations and their enforcement in the design process.*

*Keywords: building and urban regulations, typo-morphological changes, residential layout, mass-space organization, Tehran*

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In the modern era, building and urban regulations are an inseparable part not only of the urban organization but also of architectural designs. There is substantial research on regulations, guidelines, codes, policies, and so on that has identified the weaknesses of these enactments in practice in various countries. This work describes a variety of cases, for example how regulations may affect land value and housing cost (Addai Boamah *et al.*, 2012; Anthony, 2017; Bartram, 2019; Listokin and Hattis, 2005) and how contemporary housing policy trends can affect the built environment (Gabriel, 1996; Imrie and Street, 2011). Research often investigates issues – sometimes unintentional – caused by existing regulations and recommends amendments to, or entirely new, regulations (Landis and Reina, 2019). For example, in the UK, a

government department report concluded that many of the then-current building and urban regulations were either ‘unworkable or even positively objectionable’ and that they could not encapsulate qualities of good design (Department of the Environment, 1976, p. 75). Although regulations seek to ensure a minimum quality for the built environment, they should be considered as just the beginning of the design process, and not the end (Lindroos, 1989).

Similarly, such research may also identify the country-specific, or even locale-specific, essence of building and urban regulation (Visscher, 1994). A substantial number of researchers in different geographical contexts have expressed concern about the role of regulations in design outcomes. Carmona *et al.* (2006), for example, investigated the

influence of regulations in the British context. They found that, despite the promised initial benefits, the regulations were not ‘the quickest, most inclusive or most resource-efficient means’ to do deliver them. Talen also describes how regulations in the US affect the physical features of urban space and that a new approach to regulations will be required to secure improvements in cities. She argued that today we need regulations that ‘at the very least, won’t get in the way of accommodating the needs of a new generation’ (Talen, 2012, p. 204). In Europe, Nylander (2002) found that the development of standards and regulations did not guarantee a higher quality at a lower cost. Visscher (1994, p. 155) also concluded that the effort made to provide a responsive control system was ‘far from perfect’. Likewise, in the context of Iran, the effect of building and urban regulations was traced to the physical structure of cities such as the built form generally (Aliloo *et al.*, 2019; Shayesteh and Steadman, 2013), the pattern of residential development (Aliloo *et al.*, 2019; Madanipour, 1998; Mohajer Milani and Eynifar, 2017; Sholeh, 2008) and the internal relationship of elements of residential buildings (Mohajer Milani and Eynifar, 2019).

Since building and urban regulations have evidently affected fields other rather than that for which they were intended, there have been calls to review regulations and the whole control system for construction. Proposals to reform regulation around the world suggest different directions. In some countries, including Iran, the implementation of building and urban regulations for the first time had a significant role in typo-morphological changes (Madanipour, 1998; Mohajer Milani, 2019; Shayesteh and Steadman, 2013). Building and urban regulations have come under increasing criticism particularly from architects who claims that regulations, and the ways in which they have been applied, often create ‘perverse effects’ (Pisu and Chiri, 2019, p. 9) leading to unintended consequences (Moroni, 2012). They show how regulations can hinder specific built forms without addressing them directly (Pisu and Chiri, 2019) and that, as a consequence of the current regulations,

architects no longer need to design anything (Imrie and Street, 2011). Thus the aim of this paper is to examine the impact of building and urban regulations on the typo-morphological transformation of residential buildings. It focuses on the extent to which the formation of the internal arrangement and residential layout is influenced by building and urban regulations, and identifying which regulations have greatest influence on the architectural design of residential buildings.

### Theoretical background

The typo-morphological transformation of buildings is a dynamic process that develops according to the evolutionary paradigms of each particular society (Remali *et al.*, 2016). In some countries and periods, the continuity found in urban tissues is the product of a long process and slow transformations (Hermida *et al.*, 2020) while, in others, it is rapid and destructive. Morphological structure can be considered at a hierarchy of scales, from architectural elements in a room and building to urban elements such as street networks, neighbourhoods and urban regions (Alexander *et al.*, 1977; Cataldi, 2017). In architecture, typo-morphology is an approach that seeks to understand buildings and their evolution through classifying their elements (Stojanovski and Axelsson, 2018) at both the micro and macro scale. In this paper, the micro scale is defined as all the internal features of buildings while the macro scale is defined as the externalities. Since residential buildings are the most common type of urban architecture, this paper will focus on residential building.

The basic spatial representation of the internal organization of a residential building at the micro scale is the layout configuration (LC) which shows the internal relationship of rooms (Marcus, 2000) and illustrates the location of each room in the architectural plan in relation to other spaces and to features such as entrances. At the macro scale, the external manifestation of a residential building is known as the mass-space (MS) (Collins

*et al.*, 2021). Mass refers to the built part of a plot, sometimes known as the building footprint, and space refers to the open areas such as gardens, yards and driveways. The ratio of mass to space represents a different quality of design in relation to the urban fabric (Falahat and Shahidi, 2015). According to Aspinall (1993, p. 337), 'one of the most important ways in which the built environment carries the imprint of society is in the way space is organized'. Therefore, the effect of regulation on buildings may be revealed by studying the MS and LC, before and after the implementation of regulations.

### Methodology

The first stage of this research consisted of a morphological study of residential transformation (MS) in Tehran followed by a typological study of LC in a sample of residential buildings. This evaluation was based on a comparative study of residential building internal layouts. These layouts were obtained from the municipal archives, and were for buildings licensed at least one year after the launch of the new regulations.

Since different types of residential buildings are governed by different regulations, this study sampled buildings from the same category, the most common form of residential building in the city, to ensure a consistent approach. Moreover, the samples included buildings that are more likely to be disproportionately affected by building regulations. Therefore, from all building layouts accessible in the municipal archive, only 204 buildings have met the requirements for this analysis. According to the national statistical organization (Rasadkhane Shahri-e Tehran [Tehran Urban Observatory], 2017), 87 per cent of Tehran's residential buildings are apartments of four- to six-storey row-type blocks. The four- to six-storey row-type apartments consist of two forms, termed northern and southern (Figure 1). According to the land subdivision and standardization of the size and shape of plots (Madanipour, 1998), the urban form of Tehran includes a grid network of north-south

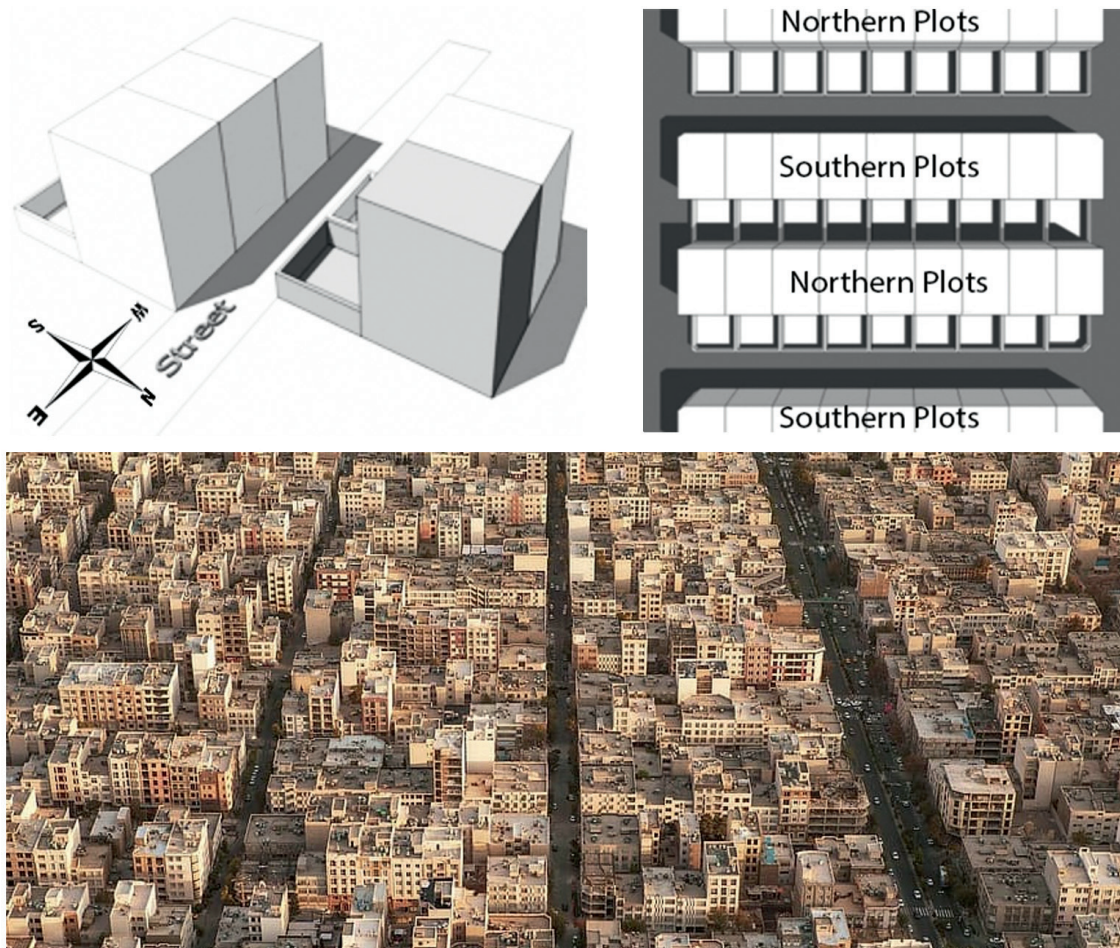
and east-west roads. Usually, the residential buildings located in the east-west roads are of the northern and southern forms.

According to the daylight access regulations, the northern plots can only access daylight through the southern façades. For this reason, the residential buildings placed in the northern plots have no other choice but to use the patio to provide daylight for spaces in the depth of the layout. This prohibition protects the privacy of the courtyards of the buildings behind the northern plots. However, it brings many issues for the northern form of residential buildings. Therefore, the northern form is affected by more building regulations than the southern form, hence this paper's sample is restricted to the northern form.

The second stage was an analysis of 20 practitioner interviews – these were mostly architects, dealing mainly with residential building construction. The number of interviews was based on guidance in Saunders (2012). They were asked to indicate which regulations were most limiting for them, and brought unwanted consequences in the design process.

### The history of typo-morphological change in Tehran's houses

Typo-morphological change in residential buildings occurs because of individualism, rationalism, industrialization, functionalism and standardization (Haeri Mazandarani, 2008; Nylander, 2002; Rybczynski, 1987). Different countries face waves of change at different times and in different ways. During the twentieth century, Tehran's residential buildings changed dramatically. The layout configuration of a house in Tehran was traditionally a central courtyard surrounded by rooms in which the private and social spaces were segregated (for more information regarding courtyard houses in Iran see Haeri Mazandarani, 2008 and Memarian, 2020). However, the hierarchy of spaces, and their configuration – the ways in which they connect – changed following the rapid urban transformation. Six stages of change



**Figure 1. Southern and northern plots in the urban fabric (photograph source: [www.pikist.com/free-photo-ikuik](http://www.pikist.com/free-photo-ikuik)).**

are recognizable in both the MS and LC of residential buildings (Mohajer Milani, 2019), beginning with the central courtyard inward-looking houses and ending with the current row-type residential buildings (Figure 2).

Change in the form of Tehran's common courtyard houses began in the early-twentieth century by importing western patterns into the local vernacular architecture (Haeri Mazandarani, 2008) and was regarded as a sign of prestige (Madanipour, 1998). Pitched roofs, a central staircase, verandahs and balconies are examples of the second stage. Tehran was also reshaped by western-educated architects and planners who wished – as did those who commissioned their designs – to make the city appear more like European capitals. This transformed the residential architecture

from introvert to extrovert (the third stage) (Marefat, 1996).

However, the main change happened as a result of the increasing demand in the housing market created by population growth. The population grew from 200,000 to almost one million in only 16 years from 1941, and it doubled to 2 million between 1950 and 1960 (Habibi and Hourcade, 2005). To control the demand for housing, the government intervened by creating massive housing development projects and introducing building and urban regulations to control these new developments. Madanipour (1998) and subsequent studies (Azimzadeh, 2003; Mashayekhi, 2016; Shayesteh and Steadman, 2013, 2016) showed how these regulations affected the urban fabric by transforming

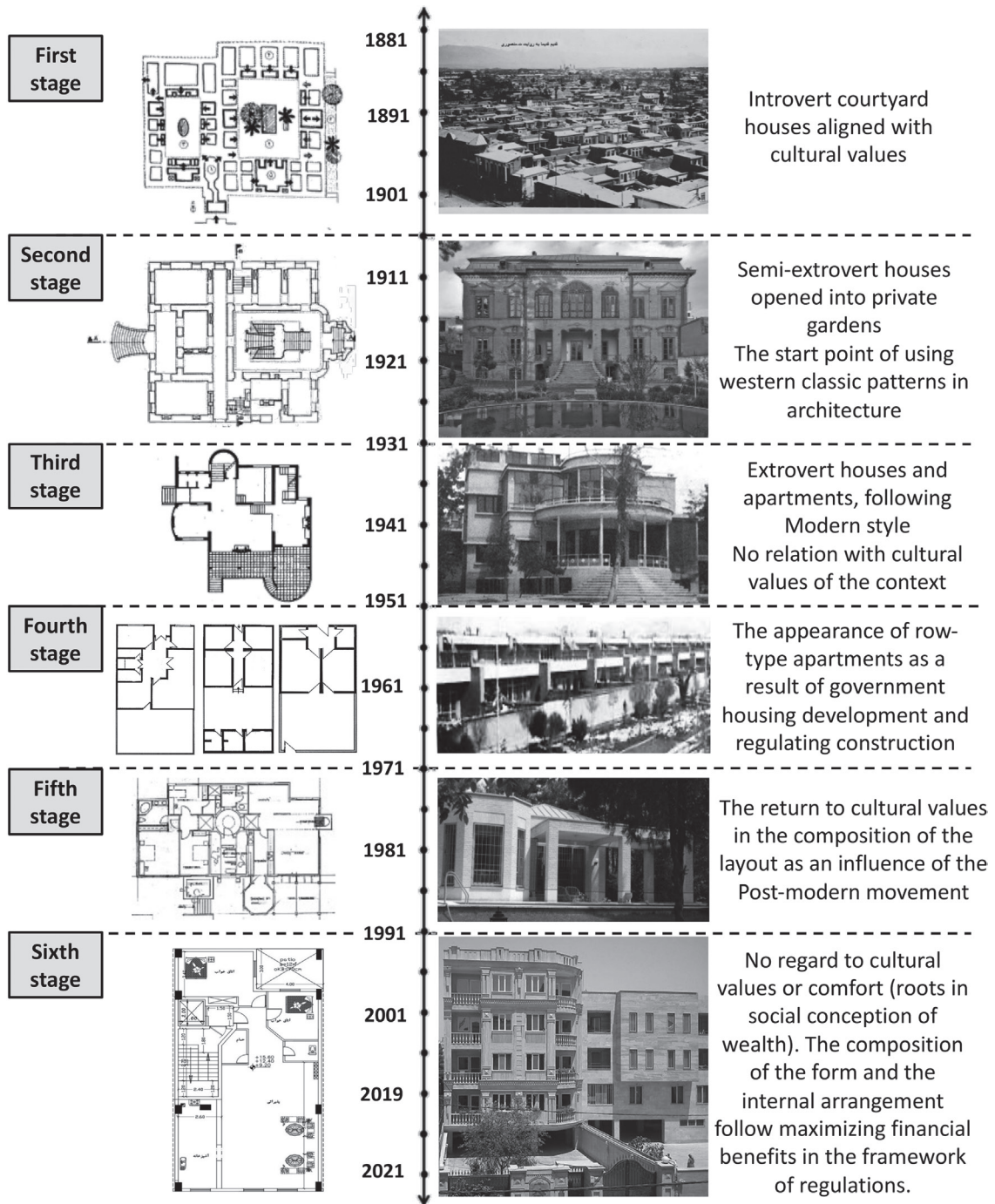


Figure 2. The process of change in residential buildings in Tehran.

the built form from the third to the fourth stage.

As these developments, termed *Kuyhaye-e-Nohganeh*, aimed to control the densification of Tehran, a new system of land subdivision was produced. This led to a standardization

of plot size and shape that is still in use today (Madanipour, 1998). These regulations defined not only the shape of the plots, but also indicated details of how to erect a building. This modernization began with changes in the street organization to a grid network of roads

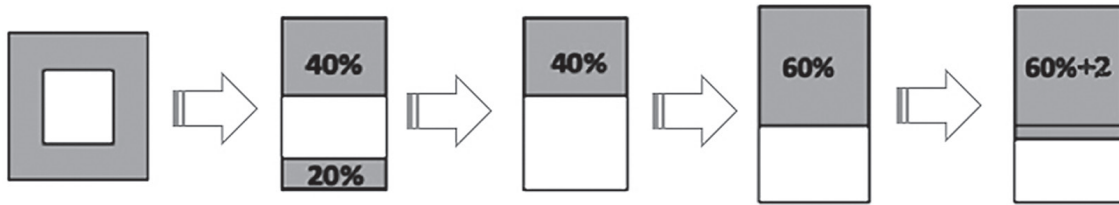


Figure 3. The process of change in the mass-space.

(Madanipour, 1998; Shayesteh and Steadman, 2013) and later continued with successive plans and the government's urban interventions to modernize the city (Mashayekhi, 2016). The grid network of roads which developed mostly in the 1960s as a result of the comprehensive plan of Tehran (designed with the assistance of a foreign consultant), served as the basis for rapid transformation in the residential layout. Several transitions in the social and political milieu also quickened the pace of the change; this altered the architectural and urban setting of the capital. Since this system of construction was supported financially by the Construction Bank's loans, these regulations began to apply to the whole city and all subsequent residential buildings in Tehran.

In addition to these changes, the change in the MS of residential buildings can be tracked by the ratio of ground coverage and its orientation which was manifested in occupancy levels code. As a result of a change in the ground coverage, the previously-dominant central courtyard house type was replaced as the dominant type by row-type residential buildings with 40 per cent mass on the north and 20 per cent on the south side of the plot. The remaining area was left open for a yard. This change in MS occurred after the introduction of new land subdivision regulations in the late 1950s, and uniform plots emerged. Gradually, this MS organization changed to 40 per cent of occupancy in the northern part of the plot only (Madanipour, 1998; Shayesteh and Steadman, 2013). In 1969, new regulations increased the ratio of occupancy level to 60 per cent on the northern side of the plot (Sultanzade, 2005), which is still the common ground coverage of residential buildings of Tehran. A possibility

of a 2 m projection from the street façade was also added to this 60 per cent to maximize the density: this was the sixth stage (Figure 3).

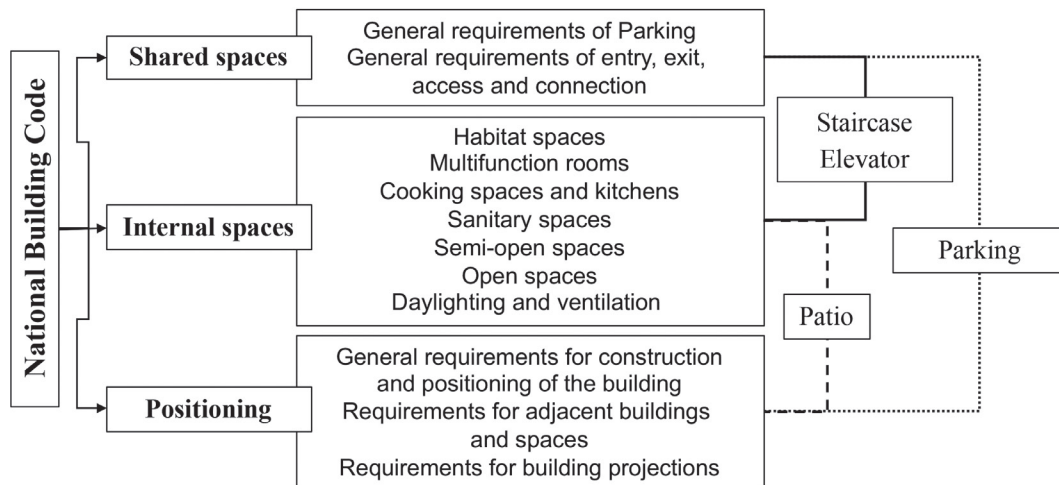
### Impact of regulations on the observed changes

Construction policies were enacted by the Supreme Council of Urban Planning and Architecture of Iran (SCUPA), which is under the supervision of the Ministry of Roads and Urban Development. In addition, the Construction Engineering Organization, in collaboration with the Office of National Building Regulations, also provides a framework of regulations, the National Building Code (NBC), which determines all aspects of building construction. Current regulations are therefore found in NBC booklets, the policies of SCUPA and the 'Action Criteria' books of municipalities. These regulations can be set out in three main categories: first, those that define the maximum and minimum, such as maximum or minimum length and width of each space or ground coverage; secondly those that set out the spatial qualities of architecture; such as preventing overlook, termed *Mahramiat*; and thirdly those that standardize building forms to improve the city image, such as the occupancy level code, and façade regulation.

The first and second categories were not assessed in this study as the former is based on the body and movements dimensions and the latter is mostly advisory in the building and urban regulations of Tehran. Instead, this study focused on the third category. An example of the third category influence is the impact of the change in the ratio of ground coverage



**Figure 4: Chamfered corners as a result of regulations preventing shadowing, but causing overlooking.**



**Figure 5. Classification of regulations with the greatest influence on residential layout.**

and the increased depth of the building mass. Thus some of the principal internal spaces, which according to NBC required daylight, now lacked daylight access. To solve this issue, a building element termed ‘patio’ was included in the LC of residential buildings; this provided access to the daylight needed for the spaces deeper within the structure but not with the same daylight quality.

Another example is the chamfered corners. Chamfered corner regulations applied to all new residential buildings and aimed to unify the daylight access to the street façades (Figure 4). However, in practice, it generated overlooking for the adjacent plots (Bonyadi,

1996; Shayesteh and Steadman, 2013). Even though the code has not been applied since 2005, the traces of the chamfered corner are still visible in the building forms.

The distinct versions of regulation (from the first version to the one in effect today) can be categorized into three different groups (Figure 5): the first group related to the ‘shared spaces’, such as the space between the residential units on each floor or parking floor. The second group addressed the ‘internal spaces’, such as bedrooms. The third group defined the ‘positioning of the building in the plot’ and its MS ratio, such as the occupancy level code.



**Figure 6: An example of the residential developments sampled in this study.**

### Typo-morphological analysis

The results from the typo-morphological analysis of 204 northern row-type residential buildings in this study is divided into 2 parts: LC analysis and MS analysis. Since studying the parking layout and analysing its configuration can bring important information about the LC of residential units, we sub-divided the LC analysis into parking layout analysis and residential layout analysis. Figure 6 shows an example of the residential developments sampled in this study.

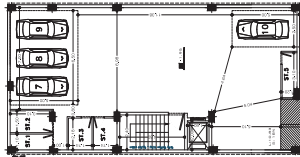
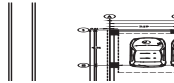
#### *LC analysis: parking layout*

The parking layout analysis showed similar configurational patterns. The comparison of parking configurations resulted in two parking layout patterns (Table 1). The results show that parking layouts were affected by the positioning of the staircase and elevator (as shared spaces), the land subdivision characteristics (such as frontage and depth) and some dimension standards such as the parking ramp dimensions.

Both patterns had the same concept; the parking layout was divided into two parts – one for locating the staircase and elevator and one which indicated where the cars were parked. The parking ramp was usually constructed outside the mass area. Therefore, it did not affect the residential typo-morphological transformation. The difference between these two patterns was in the width of the building frontage. Pattern I was mostly found in plots with a frontage of fewer than 15 m while pattern II was found on plots with a wider frontage. Therefore, considering the fact that both patterns shared the same concept, the only reason why pattern II was created instead of pattern I is the frontage width. The frontage width also affected the common constructional system, which is a structure of columns and beams, either concrete or steel, clad with blockwork and secondary beams. The maximum span of this structure is commonly 6–8 m.

Another important factor in shaping these patterns was the standard dimensions of staircases and elevators. According to the NBC office (2017), the minimum inner dimensions

**Table 1. Parking patterns I and II with their corresponding plot frontage frequency**

Layout configuration	Frontage width						Sum	
	>10	=10	10<<15	=15	15<<20	=20		20>
I 	9	13	13	1	2	0	0	34
II 	0	1	9	2	16	3	3	38

for staircases are 2.40 × 4.80 m. For elevators, this is 1.60 × 2.0 m, and 1.50 × 1.50 m for the lobby between the staircase and elevator. Therefore, in addition to the restrictions of the structural span, the parking plan was designed according to the staircase and elevator dimensions. These were critical issues when the frontage was less than 10 m.

Thus, based on this analysis, the structural system, along with the NBC codes, constrained the parking layout patterns. If the only impact of regulation was on how the parking columns were laid, it would have been of no concern. However, it has a significant impact on the residential layout. Previously, it has been thought that the residential LC design was based on a couple of cultural aspects which the building and urban regulations were trying to regulate (Haeri Mazandarani, 2008). But this study has traced the impact of regulations from the lowest level upwards and demonstrates that, instead of regulating, they dictate the design of residential LC.

*LC analysis: residential layout*


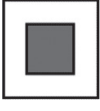

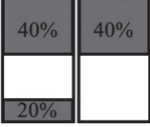
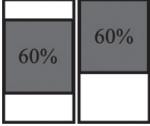

To better illustrate the impact of the NBC and urban regulations, layout typologies of 204 apartment entrances were investigated. The entry point into the residential unit had a close relationship to the positioning of the staircase and elevator. The positioning of the staircase and elevator was defined by the parking plan and by the way in which the

structural columns were positioned. Further, in 65 per cent of the samples, the entrance was located on the longer side of the layout. The reason for that is to break the layout length into two shorter parts to provide easier access to all spaces. In other words, designers tried to reduce the depth of the layout by entering from the middle. Another reason is to provide two zones for the layout on each side of the entry, one for a private zone and the other for a social zone (this has a cultural origin). For plots with the frontage of less than 10 m (35 per cent of the plots), the patio code created major constraints in the architectural layout, by leading to a corridor-type layout with substantial unused space. According to the NBC Office (2017), none of the dimensions of the patio can be less than 3 m. Therefore, it takes at least 3 m from the width of the layout. Adding these 3 m to the width of the staircase (2.4 m) required 5.4 m of space. In plots with a frontage of 7 m, for example, the remaining space is only 1.6 m. Given the need to construct walls, there would be only 1 m left to design. This regulatory dimension would not allow anything other than a corridor or an unusable space.

*MS Analysis*

Urban planning regulations are one of the key variables that control the quality of the city densification and its components. Previous studies (Aliloo *et al.*, 2019; Shayesteh and

**Table 2. Change in the MS of residential buildings and its factors**

Stage	MS	Configuration based on:	Factors initiating the change	
First		Vernacular and regional patterns	Climate, culture, social and religious principles	Pattern based
Second		Imported patterns from the West, developed mostly by foreign architects	Western classic ornaments as a result of the monarch's travels to France	
Third		Imported patterns by Western-educated architects and planners	The return of architects and planners educated in the West, bringing the Modernist perspective	
Fourth		Comprehensive plan of Tehran and regulation legislated in densification controlling developments	The increase in housing demand and the process of standardization	Regulation Base
Fifth		A mix of regulation with cultural and historical patterns	The global Post-Modern movement	
Sixth		Maximizing financial benefits through using the maximums and minimums in regulation	Urban regulation to provide a cohesive urban form	

Steadman, 2016) found that these regulations were enacted with no logical rationale or a link to the cultural features of Tehran. Accordingly, the occupancy level code changed the built form, daylight access, spatial proportions and some cultural factors such as overlooking (through the triangular balconies in the chamfered corners) (Mohajer Milani and Eynifar, 2017; Sultanzade, 2005). This research examined the MS of residential building in addition to the factors responsible for their initiation in order to better evaluate the impact of regulation on the identified types of residential buildings (Table 2).

Table 2 identifies regulation-based and pattern-based residential buildings. In the first three stages of the typological change, patterns always initiated the configuration of a residential building. From the fourth stage, pattern was replaced by regulations. Since

these regulations were designed by a foreign consultant and then were completed by the western-educated architects and planners wishing to make the city appear more like European capitals, few ties to the culture of the Tehran context were employed. Therefore, after that point, the transformation of the city's residential developments occurred primarily as a result of urban regulations followed by new building regulations.

**Expert interview analysis**

Interviewees, who were experienced residential building architects, were asked about how do they start designing a residential building and what is the role of regulation in their design. They also were asked to indicate which regulations limited them the most and bring

unwanted consequences in the design process. The answers showed that it really depends on the width of the frontage and where the plot is located (different regulation for different residential building type). The result of this stage showed that there was a unanimity in their answers. Most of the answers showed that for our sample group (4–6 storey northern row-type residential), the process of residential design usually started with the parking level, because of its complex limitations. They also indicated the principal role of parking level in the positioning of structural columns. One respondent stated that ‘designing the configuration of a parking plan layout is the column organization specifier. Knowing where the columns are gives a groundwork for designing the residential plan’. They also implied that the urban regulation (such as occupancy level code and 60 per cent + 2) defining the positioning of buildings in the plot, and the MS ratio, tended to have greatest impact on the LC design. These practitioners identified the significant role of the width of the frontage of the plots in defining the pattern of the parking layout, especially in plots with a frontage of less than 10 m.

Consequently, the parking and positioning regulations were identified as the principal regulations affecting the first phase of design. Several experts also suggested that, as one said, ‘if the plot frontage is less than 10 m wide, and the plot is of the northern type, then the second step before starting the design is to locate the patio with regards to the location of the staircase and elevator’. In this setting, the patio was an internal space and the elevator and staircase were shared spaces. The conclusion of the interview-based analysis was that land subdivision, 60 per cent + 2, occupancy level code, parking, elevator, staircase and patio regulations had the greatest impact on typo-morphological transformation of residential buildings in Tehran.

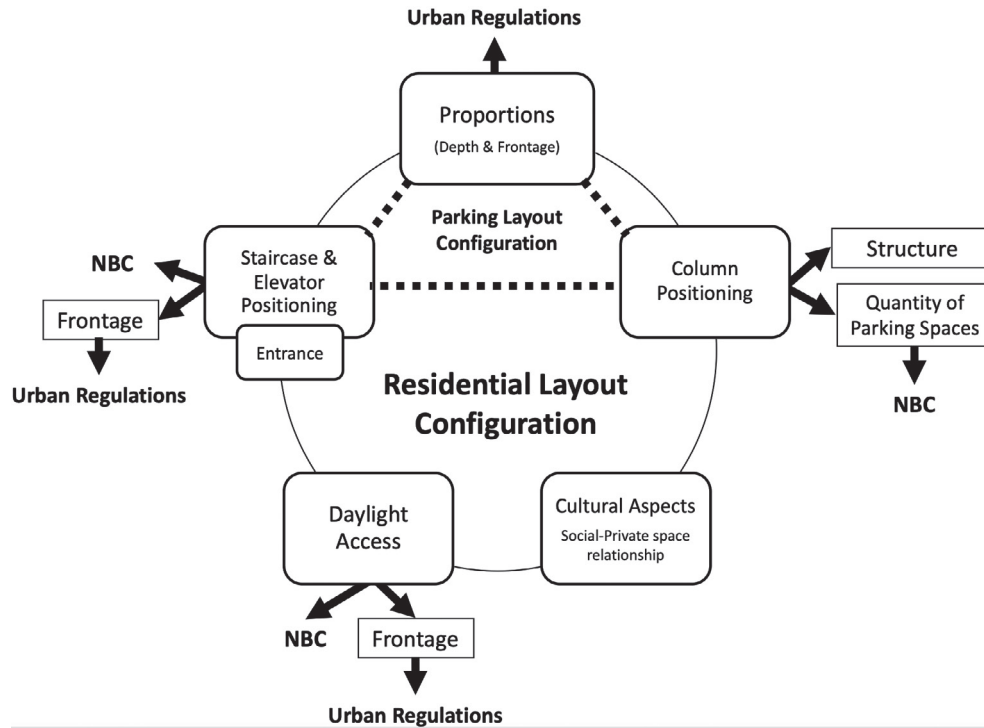
## Discussion

In general, the architects interviewed agree that the configuration of the structural columns

of a building has a significant impact on the residential layout. This research demonstrates that, in Tehran, the column configuration of residential buildings is largely constrained by the parking layout. The parking layout itself was configured in a very limited way – only two patterns were found. Therefore, the column configuration was restricted, leading to evident limitations in the residential layout.

On the other hand, the configuration of columns defined where the larger spaces (such as the living room) could be located. Consequently, this defined the location of the private and the social zones in the residential layout. Apart from these limitations, the entrance to residential units was defined based on the positioning of the staircase and elevator box. Therefore, the regulations relating to staircases and elevators, in addition to the plot proportions (subdivision regulations), had a great impact both in defining the entrance to the residential units and in the parking layout design. Accordingly, since the unit entrance was dictated by the staircase and elevator, the layout necessitated entering the social zones first (the larger space). Thus the relationship between the social and private zones in LC, which was formerly defined by cultural aspects, is now restricted by the building and urban regulations. Since the regulation had limited ties to the culture of the context, the city of Tehran, this was the most critical design-related effect of regulations.

Analysis of the regulations showed that following NBC regulations, on the number of parking spaces needed for each residential building, the standards of parking ramp, and the required proportion of elevator and staircase, left few choices for architects to exercise their design and layout skills. Adding the land subdivision proportions, such as the depth and frontage of plots, to these regulations resulted, in most cases, in there being only one acceptable configuration available for the parking layout design. This exemplifies how building and urban regulations were responsible for typo-morphological transformation in Tehran and how they restricted the design freedom of architects, especially in plots with a frontage of less than 10 m. Consequently, we can find



**Figure 7. The relationship between parking layout, residential layout and the role of building and urban regulation in configuring the parking and residential layout.**

a relation between the five factors of daylight access, plot proportion, entrance, column positioning, and cultural aspects in forming the residential LC (Figure 7).

## Conclusion

In Tehran, as in any other city, building and urban regulations were intended to provide a minimum quality for the built environment. The current urban regulations provided quality in the macro scale, especially for externalities. Despite this, the way in which they were embedded in the context of Tehran did not seem to have generated many benefits for individual buildings or their occupants. Instead, urban regulations turned out to have an adverse effect on the architectural scale by limiting the role of architects in design. Consequently, this affected the LC typology and the MS form of residential buildings. The small sizes of many plots following the land

subdivision process, and the new street system, forced architects to put together all the regulations like a puzzle, rather than through 'design'. Overly-stringent building regulations were responsible for many limitations, leading to undesirable and unforeseen outcomes. Internally, the staircase and elevator codes, in addition to the parking regulations, affected the way in which the building's structural columns were arranged. On the other hand, the structural system, along with the NBC codes, constrained the parking layout patterns. The parking layout also affected the residential unit by locating the private and social zones through specifying the column organization. Positioning the staircase and elevator also dictated the entrance of residential units, which again transformed the LC. Furthermore, the establishment of the patio for plots with a frontage of fewer than 10 m created a corridor-type layout with abundant unused spaces. Therefore, this research concludes that the role of architects became

limited and, in some cases, was eliminated by building regulations, and that many typo-morphological changes were recognizable in residential buildings that were unrelated to the cultural values and traditional typomorphology of the context of Tehran.

A variety of reasons account for this second phenomenon. In Tehran, these regulations were formulated without ties to the city's cultural context. Many believe that the regulations formulated in this way, without attention to the context, may be problematic (for example, Talen, 2012). On the other hand, when regulations are place-sensitive, they can adapt better to its context (Talen, 2012). Since the comprehensive plan of Tehran was written with the aid of a foreign consultant and was continued by European-educated architects and planners, who thought of traditional patterns as a sign of an obsolete approach (Hojjat, 2015), there is little wonder why new ways of living were far removed from the culture of the context. Therefore, the contemporary residential units in Tehran created a different concept of residence. This was characterized by a change in the essence of space from multifunctional to monofunctional, causing issues in daylight access and influencing lifestyle by transforming the spatial organization of residential buildings. Although reviews of some urban regulations in Tehran have already begun, this study recommends a deeper analysis of their impact and unintended consequences on the typo-morphology of city before their enforcement.

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