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URBAN HOUSING TYPOLOGIES THROUGH MODERN HISTORY

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Abstract: *Urban housing typologies refer to different ways of designing and constructing various types of housing that exist in urban areas. They can be classified by function, form, shape, construction type, and materials. Several residential building models, typologies, and different solutions have emerged with the aim of solving the problems arising from overpopulation. Some of these have succeeded, while others have failed miserably. As the twenty-first century progresses, the world is facing major housing and environmental challenges; the increase of the population and the lack of resources and housing areas constitute a direct threat to human wellbeing, and to the "health" of the planet. This has already started to have a major effect on architecture in general, and on housing design in particular, with new sustainable models and typologies. This paper focuses on the historical development of urban housing, and investigates its shaping factors, and the most important theories and movements which had an impact on urban housing. Furthermore, the paper asks questions about what is driving change in contemporary urban housing design, and what the new directions in the field are, searching for solutions on demand. It also investigates urban housing typologies and classifications and their relations to the surrounding built environment.*

Keywords: *City Housing, Mixed-use, Shared Spaces, Forms of living, self-built, informal settlement*

1. INTRODUCTION

Urban housing typologies have been changing in time in confronting housing needs in response to rapid urbanization [1]. In the process of the development of civilization and the increase of population in cities, the functions of housing have changed, and the forms and components have multiplied in the process of cultural, environmental and political development. This is why different types of housing have appeared adapting to their different uses, such as laborers' housing, military housing, temporary housing, student housing, elderly housing, sanatoriums, rural housing and urban housing in towns and cities, which now constitute more than 60% of housing forms [2]. These are found in residential agglomerations and neighborhoods that include multiple forms of houses and buildings in which various services and public facilities are available. In the urban housing which this paper concerned with, buildings take different forms, like attached, detached, linear, and solitary forms of housing, each with its own characteristics. Understanding these typologies and characteristics is important for city planners, policymakers, and real estate developers as this helps them

make informed decisions about housing policies, zoning regulations, and development projects.

2. THE FACTORS THAT AFFECT URBAN RESIDENTIAL ARCHITECTURE

The design process of residential buildings is subject to a set of factors that affect their form in their various classifications and locations. The study of the highly diverse urban housing models cannot be done in isolation from understanding the factors and influences that have contributed to their formation and their interaction with the architectural design process, and the importance of these factors in shaping the housing structure.

2.1 Environmental Factors

Terrain (valleys, hills, and rivers) has a direct impact on housing design, structure, and building materials. Furthermore, the climate plays a major role in the emergence and development of residential buildings and in the formation of their main elements, such as roofs, facades, urban fabric, openings, and building orientation on site.

2.2 Demographic, Social, and Cultural Factors

Dwellings are directly affected by all the human dimensions related to lifestyle, behaviour, culture, and the surrounding environment. In addition, the cultural level of the residents also plays a role in shaping the housing layout and structure, as it affects the spaces needed by the residents [3]. Additionally, the large and rapid increase of the population is one of the most important factors influencing the shape and type of housing.

2.3 Economic Factors

The number of the family members, the level of per-capita income, and the economic and political system adopted by the state have a direct impact on the structure of housing. Activities like agriculture, trade, and industry affect the economic level of the population and their general behavior, influence the emergence and development of traditional residential buildings. It is noticable that currnet urban lifestyle and economy are influencing the contemporary urban housing design.

2.4 Legal Factors

Legal factors play a major role in the emergence of residential buildings because of their impact on all the previous factors, as well as on the general identity of the city, where the state’s policies play an important role in housing typologies and structures. These can be considerd the shaper of the immage of the city. Furthermore, they can affect the affordability and accessibility of housing for different groups of people, through building codes and regulations, zoning and land use, and other aspects.

2.5 Technical Factors

Throughout history, mankind has relied on building materials that are locally available to build dwellings, with which he formed multiple housing styles with different techniques. In the idustrial age and the development of technology, new building materials appeared. This has changed the form of construction, which had a great impact on designing new types of

buildings. The development of the construction market is not only linked to the desire for home ownership, but also to rising functional and economic demands [4].

3. THE MOST IMPORTANT URBAN PLANNING THEORIES THAT HAVE INFLUANCED THE DEVELOPMENT OF URBAN HOUSING

Until the 18th century, urban planning had all been about creating roads, squares, and finding harmony betwen the facades of the buildings, in addition to caring about ”ruins” and the palaces [5]. However, after the industrial revolution—the era in which the machine was invented and changed the life/work style—cities witnessed a substantial population growth that led to urban sprawl as a way of fulfilling the needs of the growing population. This pushed the urban planners to think about and look for solutions by proposing multiple planning ideas in different directions. Some aimed to develop existing cities, and others cared more about creating new built environments, especially after the spread of new technologies and materials in the building industry, which made a huge change in the building structure, and new typologies started to emerge.

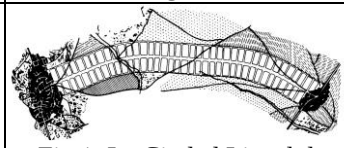
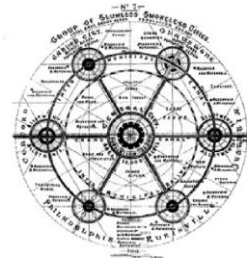
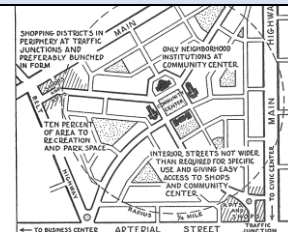
3.1 The Linear City, 1882, by Soria Y Mata		
The Concept	Influence on Housing	Figure
A construction of a linear settlement along a transportation route to create urban environment that would provide all the necessary services and amenities within a single linear structure [6].	The layout consisted of large blocks with residential buildings surrounded by vegetation, with freedom to build different models of houses to avoid monotony [7].	 Fig 1: La Ciudad Lineal de Madrid, as presented in 1882 [8]
3.2 The Garden City, 1898, by Sir Ebenezer Howard		
Six broad main avenues would radiate from the center loops, concentric to this urban core would be a park, a shopping center and conservatory, a residential area, and then, at the outer edge, industry [9].	A mix low-density housing surrounded by green space, usually single-family homes and apartment buildings.	 Fig 2: Howard’s Garden City
3.3 The Neighborhood Unit, 1900, by Clarence Perry		
Small, self-sufficient communities within larger cities, with a population of approximately 5,000-9,000 people [10]. Each unit has its own amenities, with a pedestrian-friendly design.	A mix of housing types for different income levels, family sizes, and lifestyles [11]. Single-family homes, with front and backyards, and apartment buildings located above retail or office spaces [12].	 Fig 3: Perry’s Unit

Table 1: Important Urban Planning Theories of the 19th Century

3.4 The City of Tomorrow, 1922, by Le Corbusier		
The Concept	Influence on Housing	Examples and Critique
A high-density urban environment organized around a series of separated functional zones [13].	The residential zones, located in high-rise apartment buildings, are widely spaced and surrounded by a green belt in order to ensure sun light [14].	 Fig 4: The Radiant City
3.5 The Broadacre City, 1932, by Frank Lloyd Wright		
The concept was a radical departure from traditional urban planning and design. It envisioned a decentralized, sprawling cityscape, with a widely dispersed population across the countryside [15].	The Broadacre City focused on low-density housing, with an emphasis on planning single-family homes on large plots of land, providing residents with plenty of space and privacy, and an car-centric design [16].	 Fig 5: The Broadacre City
3.6 The Compact City, 1973, by G. Dantzig and Th. L. Saaty [1]		
An urban model associated with a more densified occupation, with consequent overlapping of its uses (homes, shops and services) and promotion of the movement of pedestrians, cyclists and public transport users.	Various types of housing are designed to support the principles of compact city. high-density multi-level housing, mixed-use developments and cooperative living styles.	 Fig 6: Turfmarkt Compact city in 1982

Table 2: Important Urban Planning Theories of the 20th Century

4. URBAN HOUSING TYPOLOGIES

This chapter discusses the essential conditions and design strategies for urban habitation, and introduces aspects at a various scale of urban territory, neighborhood, the building, the unit and the individual realm within. These typologies are used to understand and analyze the characteristics and needs of different types of housing, and are used in a variety of contexts, including architectural design, urban planning, and building science [17]. Building typology is a classification system used to categorize buildings based on their function, form, and construction. It is a way of grouping similar types of buildings together and analyzing their

[1] The term "compact city" was first officially used in 1973 by two American mathematicians: G. Dantzig and Th. L. Saaty in their book entitled *Compact City: Plan for a Liveable Urban Environment*. But The concept influencing urban planning is often attributed to Jane Jacobs and her book: *The Death and Life of Great American Cities* (1961)

characteristics and features [18]. In architectural design, building typologies help architects to understand the characteristics and needs of different types of building and make informed design decisions. In this part, the paper studies the many different urban housing typologies that exist in most of the urban contexts of cities, each with its own unique characteristics and elements (fig 7).

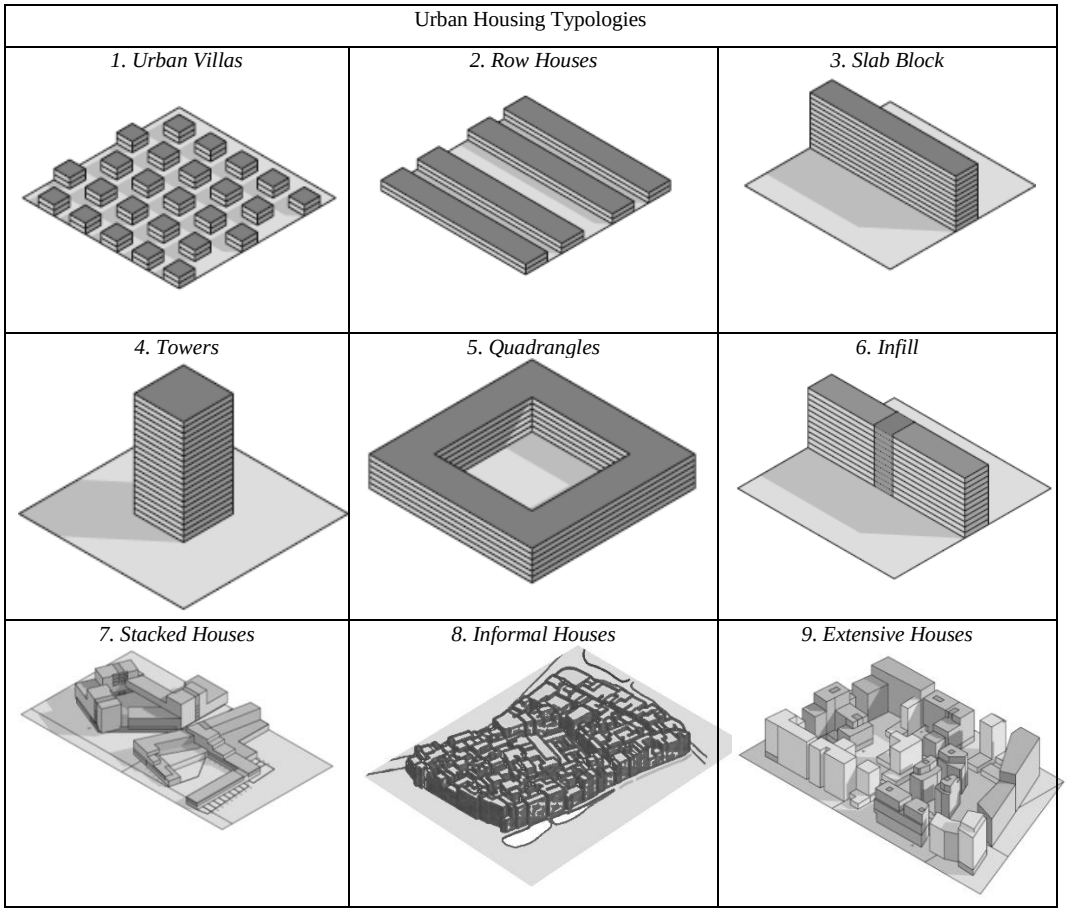


Fig (7): Urban Housing Typologies

In the past few years, urban development started to blend and integrate multiple architectural styles, building techniques, or functionalities within a single residential structure, creating a megaform typology usualy refered to as Hybrids. These hybrids have various forms of housing often combine elements from different typologies to address diverse needs, and optimize space, like Mixed Uses, Co-Hosuing, Adaptive Reuse...etc.

4.1 Urban Villas/Single Family homes

These are typically solitary multi-level single-family homes that are located in densely populated urban areas, often designed to blend into the existing urban fabric. Urban Villas are designed to provide an alternative to traditional single-family homes, which often require

long commutes to work, schools, and shopping. They are typically located near public transportation, parks, and other community amenities, making it easy for residents to access services and recreational activities without relying on a car. The design of Urban Villas can vary widely, but they often feature high-quality finishes and fixtures, large windows (fig 8), outdoor spaces, and flexible floor plans that can accommodate a variety of lifestyles, and one of the famous examples of shaping contemporory urban villa is Le Corbusier's Maison La Roche-Jeanneret [19] (fig 9).

Fig 8: Villa M, Vienna, by Delugan Meissl, 2023

Fig 9: Le Corbusier's Maison La Roche-Jeanneret 1925

Some Urban Villas may also include shared amenities, such as a pool or fitness center, that are typically found in apartment buildings or condominiums. One of the key benefits of Urban Villas is that they provide a sense of community and neighborhood that is often lacking in traditional urban settings [20]. Because they are designed to blend into the existing urban fabric, they can help create a more vibrant and connected urban environ-ment that promotes social interaction and community building. Overall, Urban Villas represent a new model of urban housing that combines the best features of suburban and urban living. They are designed to meet the needs and preferences of modern urban residents, providing a sustainable, convenient, and high-quality living experience in the heart of the city.

4.2 Row Houses and Terraces

Terraced dwellings have a rich history and affected housing typologies in various regions. They were proliferated between the 18th and 19th centuries, as did many early forms of semi-detached and detached squatter houses, with chaotic backs and facades. These houses had no gardens, neither front nor back. The master of the house and his family lived virtually and socially “stuck up” on the upper floors, separate from the street [21]. As for the smaller dwellings that came later, their back spaces were not healthy or pleasing, but only functional [22], one of the famous examples that had effect on the typology is the Georgian house in London and The Brookline Brownstones in New York (fig 10). The terraced dwelling of the 20th century became a better place, with improvements in sanitation and sealing applications. As for the back of the house, it was replaced by the back garden of the house and a place for rest and entertainment. The street has also changed, with front gardens becoming the standard model. The idea of the place often extends beyond the boundaries of the property to the parking space on the street. The terrace, as a pattern, was an opportunity to consider the total formation in modernity. Attention to this consideration was often used to distinguish between terrace and classroom housing, as in the well-known residence in Berlin, “Britz”, of the

German architects Taut and Wagner (fig 11), which resembles a horseshoe and in which each house appears as part of the overall formation.

Fig 10: The Brookline Brownstones, New York 1840

Fig 11: Berlin Britz, Taut and Wagner

There was a resurgence of interest in terraced housing as a variant of high-density development to the growing numbers of slab buildings and high-rise apartments in the early 1960s. While the 'aggressiveness' towards high-rise housing has waned and towards many multi-unit urban blocks, while interest in terraced housing has continued as a desired style for occupants. The terraced project is open on both sides and contained between two empty parallel walls separating the dwellings. The smallest number of buildings that can form a terraced class dwelling is three [23]. These can be single or multi-family houses, and they can reach 7 floors.

4.3 City Blocks and Slabs

Slab housing is a type of urban housing typology that is characterized by long, narrow buildings with a rectangular or square footprint. It can have multiple appartments on each floor, and it can be in a twin form sharing one staircase or multiple twins attached together forming linear typology. Slab buildings typically have a low- to mid-rise height and are often oriented perpendicular to the street. Slab housing can be found in both residential and commercial developments and is a common feature of modernist architecture. It is often used in dense urban areas where space is at a premium. The buildings are typically designed to maximize the number of units per floor, and may have balconies or terraces to provide outdoor space for residents. Slab housing can be used for a variety of purposes, from affordable housing to luxury apartments, and can be found in both public and private developments. These Housing structures are often associated with modernist and Brutalist architecture and have had notable influence in various contexts, like Le Corbusier's Unité d'Habitation (fig12), and Eastern European Plattenbau, in former Soviet Bloc contries.

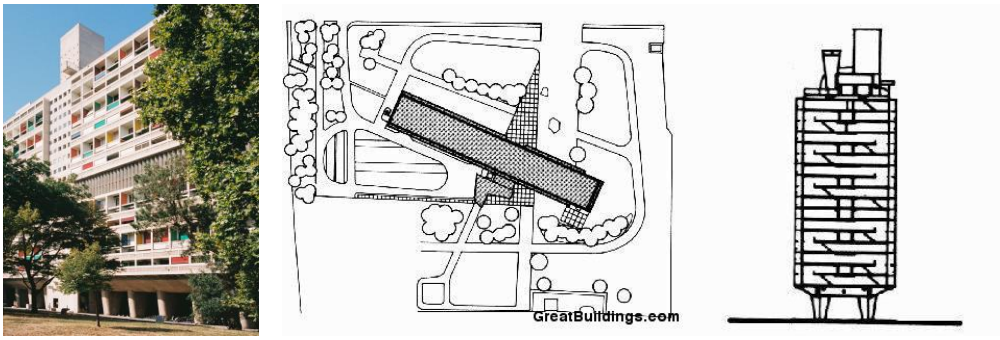


Fig 12: Le Corbusier's Unité d'Habitation, in Marseille, France, 1925

4.4 Vertical Houses (Towers and High-rises)

Vertical architecture is associated with height. Vertical housing began to spread as a solution to the shortage of places, due to the transition from the countryside to the cities, from the industrial revolution until the height of the modernist movement, when architects began to propose solutions to contain the working population. Since that time, skyscrapers and residential towers have been designed in a common pattern that treats height as a succession of horizontal projections, with one vertical axis (the elevator) connecting them [24]. These types of building did not have much appeal in the European urban context due to their association with social housing projects. On the ground level, the increase in the number of towers and story blocks built throughout Europe, especially during the second half of the 20th century, necessarily meant a redefinition of the street. It was necessary to create new spaces for these buildings, which were on a different scale and isolated from the immediate surroundings [25].

This type of housing is associated with noise, pollution, crime and loss of privacy, and with great pressure on the infrastructure and the difficulty of maintenance, far from adapting to the human scale, as the large use of the elevator limits the behavior of the residents. Some solutions were founded in order to limit these problems. By focusing on a solution to make the dense tower housing create communities and offer some quality of social life. The "Mirador" building in Madrid for MVRDV (fig 13), and the "Vertical Forest" in Milan by "Boeri" office (fig 14), are two of the most important examples of the attempts to create vertical communities.


Fig 13: Mirador, Madrid, 2005, by MVRDV


Fig 14: Vertical Gardens, in Milan, 2009, by Boeri

4.5 Narrow Houses and Infill

This classification is used all over the world for the purpose of densifying the reidential areas of the city in order to create the largest amount of housing with controlled orientation [26]. An example is the “Azuma House”, “Tadao Ando”, (fig 15) and the “Karet House”, “Jacob Schezenzny” in Warsaw, Poland (fig 16).

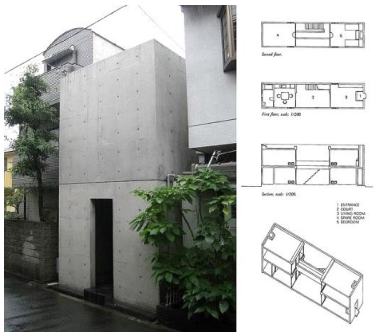


Fig 15: Azuma House, in Japan

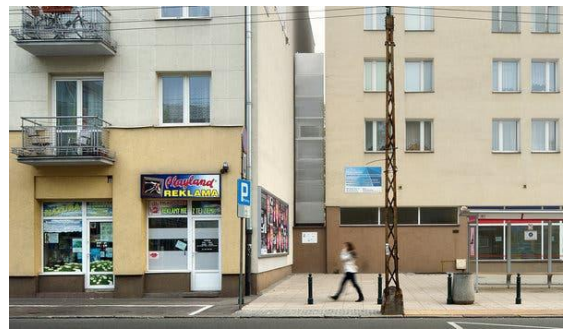


Fig 16: Keret House, in Warsaw Polland

As for the challenges facing this classification, they are the access of light to the interior and the lack of flexibility, which makes it difficult to control and change the dwelling due to its narrowness, the common social aspects, the façade facing the road, the way it is integrated and harmonious with the neighborhood, as well as the urban overlaps in terms of density, size and harmony with the neighborhood. However, the infilling of a vacant lot is a traditional design task in the city. The piece that joins together two separate buildings has to accommodate the height and depth of each of its neighbours. In most cases this building has a front-back orientation due to the presence of firewalls on both sides, in some cases, however, it is its only aspect.

4.6 Quadrangles and Courtyards

These are called urban blocks or the perimeter blocks, which consist of row and corner floor plans. The primary typological characteristic of this type of block is that it faces simultaneously inwards onto an interior courtyard and outwards onto the urban surroundings. Coupled with the need to orient with respect to the sun this results in different floor plan zonings for the respective sides of the block [27]. It can also be opened from the corners or the sides as a reaction to the difficult floor plan arrangement of the apartments in the perimeter block.

The tension between inward and outward orientation of the floor plan, on the one hand, and the orientation with respect to the sun, on the other, determines the form of the individual sides of the block. The perforation of the perimeter building is a strategy that creates external spaces and distance between the separate parts of the block. The courtyard bungalow appeared in Los Angeles around 1910 as a new form of low-cost housing consisting of a number of attached dwellings, or small, detached cottages clustered around a central garden. The designers of New York apartment blocks at the turn of the last century had explored the quadrangular dwelling, or courtyard block, as a new paradigm. The inner courtyard was seen in previous designs, as in European models, as a secondary space and as a service area or light fixture [28].

Architects defined the use of empty spaces between buildings, such as inner courtyards, skylights and quadrangular openings, as a key organizational or structural tool in the plan. The use of this type of housing increased, and the inner courtyard became more important and was designed as a closed space consisting of luxurious gardens that usually contain green spaces, fountains and trees, and are quiet and separated from the noisy street. The Graham Court (fig17), built for the Astor family in 1901, is generally considered the first quadrangular residence to treat the inner courtyard as an important part of the design [29]. This typology remains relevant today, albeit in evolved forms that address contemporary needs and preferences.

Fig 17: The Graham Courtyard

4.7 Conglomerate & Stacked Houses

Stacked clustered housing is a type of residential development where individual units are stacked on top of each other to create a clustered housing arrangement. This type of housing is often referred to as "stacked town houses" or "stacked flats". In stacked clustered housing, individual units are arranged vertically, with each unit occupying its own floor. Stacked clustered housing is typically designed to provide residents with the privacy and autonomy of a traditional single-family home, while still offering the benefits of clustered housing, such as shared amenities, common spaces, and a sense of community.

This type of housing can be particularly attractive in dense urban areas, where land is limited and traditional single-family homes are not practical. Stacked clustered housing can take many forms, but it is typically designed to maximize living space while minimizing the building footprint. This can be achieved through the use of compact, efficient floor plans, and by sharing common spaces and amenities such as parking, laundry facilities, and outdoor areas. Examples of stacked clustered housing can be found around the world. For instance, in Canada, stacked townhouses (fig18) are a popular housing type that offer a compact, efficient living space in urban neighborhoods.

Fig 18: Habitat 67, Montreal, by Safdie Architects

In London, England, stacked flats are a common housing type that provides affordable, high-density housing in the city center. In Hong Kong, many residential towers incorporate stacked flats to provide high-density housing in a vertical arrangement.

4.8 Informal Houses

Informal housing refers to housing that is built and/or occupied without legal recognition or regulatory approval, often in violation of building codes and zoning regulations. This type of housing is also sometimes referred to as "slum" housing, "shanty towns", "squatter settlements", or "informal settlements". Informal housing is typically characterized by lack of basic services and amenities, an example is the surrounding slums of Damascus, Syria (fig 19). Informal housing is a widespread phenomenon in many parts of the world, particularly in developing countries where urbanization is rapid and the demand for affordable housing exceeds the supply, like Mumbai (fig 20). According to United Nations estimate, one billion people around the world live in informal settlements. Despite their often-precarious nature, informal settlements can also be vibrant and resilient communities, with their own social and cultural norms, and strong social networks.

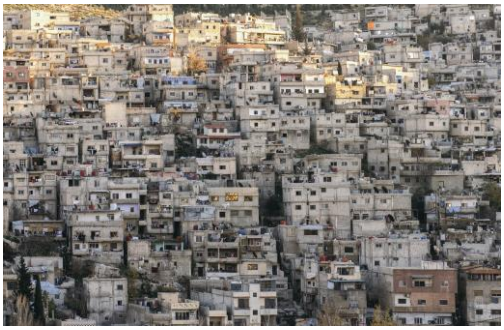


Fig 19: Informal Housing on The Edge of Damascus

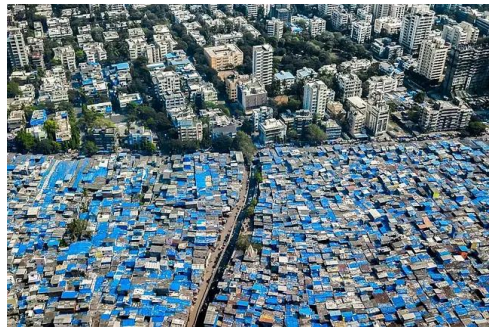


Fig 20: Informal Housing in Mumbai

Many informal settlements are located in urban areas close to jobs and economic opportunities. Efforts to address informal housing typically involve a combination of policy and regulatory reforms, increased investment in affordable housing, and community-based approaches to planning and development. However, addressing informal housing is a complex and long-term challenge that requires the involvement of multiple stakeholders, including governments, NGOs, and the communities themselves.

4.9 Lofts and Extensive Houses

Loft apartments are open-concept living spaces that are typically located in former industrial or commercial buildings. These spaces often feature high ceilings, large windows, and exposed brick or ductwork. Extensive houses are popular among young professionals and artists who value the unique character and flexibility of these spaces. While loft apartments can be found in many cities around the world, they are particularly prevalent in North America. Some of the popular examples of this housing typology include the "SoHo" neighborhood in New York City (fig 21), the Distillery District in Toronto, Canada, and the collective extinsive house in Copenhagen (fig 22).

Fig 21: SoHo neighborhood lofts, New York, 1870

Fig 22: Extensive House, Copenhagen, 2005, by MVRDV

5. CONCLUSION AND OUTCOME

Residential housing typology today encompasses various elements that reflect the evolving needs, preferences, and advancements in architecture, and urban planning.

One of the main challenges to the current thought about housing is, in fact, the challenge that urges the renewal of the residential space, not only in terms of the required spatial and technical reconfiguration of the built cell, but also in terms of exploring new urban arrangements. Unlike residential plans that take the direct relationship with the street or merge with the existing urban mass as their starting point, the towers and floor blocks that stand separate from their surroundings tend to take the design of the dwelling as their starting point. The overall shape of the building can be defined in its own terms, which provides an opportunity to create new formal and spatial patterns. These buildings often have an important impact on the urban site because of their visually clear shape, which is physically distinct and typical of the neighborhood.

The need for new adaptable forms of living, as the housing community is determined by using positive impact of designing homes that will create sustainable communities for the future. The development of building types and the analysis of individual separate examples are built on the basis of integrating regular building patterns and benefiting from previous experiences. With the increase in urban density, cities must be intensified in sustainable and humane ways that suit the local environment.

There are some other typology-related forms, such as Sustainable houses, Smart houses, Flexible/Adaptive houses, Affordable houses, etc. However, these are more functional elements than real classification, and for the benefit of this paper, all current and future housing designs should have this type of dwellings integrated within the building typology itself to face the challenges that the world is facing.

REFERENCES

[1] **GÜR, E.A., YÜKSEL, Y.D.,** Analytical investigation of urban housing typologies in twentieth century Istanbul, Department of Architecture, Istanbul Technical University, Istanbul, Turkey, 2019, pp. 93.
[2] **SHAHIN, I.,** The Morphology of Prospective Housing, Damascus University, 2017, pp. 48.
[3] **BUJANG, ZARIN, JUMADI,** The Relationship Between Demographic Factors and Housing Affordability, *Malaysian Journal of Real Estate*, Volume 5, 2010, No 1, pp. 50.
[4] **ZIELINA, GLEŃ,** Studies of the Prefabricated Housing Construction Market in Poland, Tadeusz Kościuszko Cracow University of Technology, *Journal of Civil Engineering* Vol. 9, 2014, Issue 2
[5] **SHAHIN, I,.** The Morphology of Prospective Housing, Damascus University, 2017, pp. 27.
[6] **ANTYUFEEV,** Linear cities: controversies, challenges and prospect, Department of Urban Studies and Theory of Architecture, Volgograd State Technical University, Academicheskaya St, Volgograd, Russia, 2017, pp. 2.
[7] www.architerrax.com/post/linear-city-concept
[8] **SÖDERHOLM, D,.** Rural Densification and the Linear City, degree project in the built environment, second cycle, stockholm, sweden, 2016, pp. 7.
[9] www.britannica.com/topic/garden-city-urban-planning
[10] www.planningtank.com/planning-theory/clarence-a-perrys-neighborhood-unit
[11] **SHAIKH, H,. MAHALLE, S,. SAHU, S,.** Towards creating an Ideal Neighbourhood, *International Research Journal of Engineering and Technology*, MIT, Vol 6, 2019, No 3, p 6979
[12] **MUMFORD, L,.** The Neighborhood and the Neighborhood Unit, *The Town Planning Review*, Vol. 24, 1954, No. 4, pp. 256-270
[13] **MARMOT, A,.**, The Legacy of Le Corbusier and High-Rise Housing, Built Environment Vol. 7, No. 2, The Importance of Planning History, 1981, pp. 82-95
[14] **LE CORBUSIER,** The Athens Charter, New York, 1943, p25
[15] www.nextcity.org/urbanist-news/frank-lloyd-wrights-utopian-dystopia
[16] www.archive.curbed.com/2017/1/4/14154644/frank-lloyd-wright-broadacre-city-history
[17] www.archisoup.com/understanding-building-typology
[18] Ibid
[19] www.dezeen.com/2016/08/05/maison-la-roche-jeanneret-le-corbusier-paris-residence-france-house-villa/
[20] www.britannica.com/topic/urban-planning/Competing-models
[21] **FRENCH, H,.** New Urban Housing, Yale University Press; 1st edition, 2006, p21
[22] Ibid
[23] **MUTHESIUS, S,.** 1984, The English Terraced House, Yale Univ Pr; Reprint edition, 1984, p145
[24] Ibid
[25] **FRENCH, H,.** New Urban Housing, Yale University Press; 1st edition, 2006, p148
[26] **AAD STUDIO,** Dwelling Typologies, Lund School of Architecture, 2014, pp. 8.
[27] **PFEIFER, G,. BRAUNECK, P,.** Town houses: A Housing Typology, Birkhäuser Verlag, Berlin, 2009, pp. 14
[28] **FRENCH, H,.** New Urban Housing, Yale University Press; 1st edition, 2006, pp. 54.
[29] Ibid

FIGURES

1 **SÖDERHOLM, D,.** Rural Densification and the Linear City, degree project in the built environment, second cycle, stockholm, sweden, 2016, pp. 7.
2 www.researchgate.net/figure/Ebenezer-Howard-Garden-City-model-1898_fig1_307138728
3 **Shaikh, H,. Mahalle, S,. Sahu, S,.** Towards creating an Ideal Neighbourhood, *International Research Journal of Engineering and Technology*, MIT, Vol 6, 2019, No 3, p 6979
4 **Marmot, A,.**, The Legacy of Le Corbusier and High-Rise Housing, Built Environment Vol. 7, No. 2, The Importance of Planning History, 1981, pp. 82-95
5 www.mydstudio.com/blog/frank-lloyd-wrights-broadacre-city.html
6 www.architectuur.nl/project/de-compacte-stad-bijna-voltooid/
7 a+t Research Group, Why Density? a+t Architecture Publishers, Spain.
8 www.archdaily.com/998681/villa-m-delugan-meissl-associated-architects
9 https://www.dezeen.com/2016/08/05/maison-la-roche-jeanneret-le-corbusier-paris-residence-france-house-villa/
10 https://urbanomnibus.net/2016/04/201604typecast-the-row-house/
11 www.i.pinimg.com/originals/e4/75/34/e4753468d95f27851a98f6df6e0263e0.jpg
12 https://www.archdaily.com/85971/ad-classics-unite-d-habitation-le-corbusier
13 www.mvrdv.com/projects/135/mirador
14 www.twistedsifter.com/2016/06/vertical-forest-residential-towers-in-milan-by-boeri-studio/
15 www.nytimes.com/2012/10/25/greathomesanddestinations/in-warsaw-a-creative-home-fills-a-void.html
16 www.archiweb.cz/en/b/dum-azuma
17 www.nymag.com/intelligencer/2020/04/graham-court-apartments-harlem.html

18 www.archdaily.com/404803/ad-classics-habitat-67-moshe-safdie
19 www.thenewhumanitarian.org/feature/2007/06/20/plight-palestinian-refugees-worsening-most-parts-middle-east
20 www.nobroker.in/blog/slum-areas-in-mumbai/
21 www.arquitecturaviva.com/works/silos-renovados-copenhague-
22 www.urbanomnibus.net/2013/06/living-lofts-the-evolution-of-the-cast-iron-district/