

## Article

# New Housing Developments in the City Center of Guadalajara (Mexico): An Analysis from the Perspective of Collective and Sustainable Dwelling

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**Abstract:** New vertical housing developments in Guadalajara (Mexico) are reaching the city center as a response for redensification after many years of expansion of the urban area characterized by a suburban, low density and fragmented pattern. This horizontal growth, dominated by use of the automobile as prevailing mode of transport, has proven to be unsustainable not only from an environmental point of view, but also from a social perspective where the “human scale” of the city has been affected, same as the daily life of its inhabitants. On the other hand, vertical housing proposals are by their very nature associated with concepts of redensification, compact city and collective living; the aim of this article is to analyze some new housing developments in Guadalajara downtown in order to evaluate to what extent the new buildings embody a more sustainable, livable and collective dwelling, to discuss findings, successes and failures and thus be able to contribute some conclusions and open a broader reflection about contemporary housing, urban density and downtown redevelopment in Latin America cities through collective and sustainable dwelling.



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**Keywords:** collective housing; sustainable dwelling; human scale; urban densification; gender perspective

## 1. Introduction: Research Context

This project is part of a wider line of research about housing and the city, which arises from the need to direct urban analysis and planning towards more qualitative directions, that allow for rethinking the urban question through indicators that are not merely numerical but take into account the complexity of all dimensions of living in cities that are facing rapid urban growth. Within this framework, urban studies are being carried out, related to characteristic phenomena of Mexican cities such as: the rapid growth and diffusion of gated communities, the strong presence of marginalized and socially segregated areas, the abandonment of historical centers, among others, contributing to the interpretation of these phenomena from the urban experiences of the inhabitants and their everyday life [1–3]. So, the present article, as a part of this research background, integrates the same qualitative perspective into the study of the recent vertical housing developments that are being proposed as a redensification plan for the city center of Guadalajara, Mexico.

Guadalajara is the second largest city in México and one of the largest cities in Latin America. Characterized by a rapid urban growth due to its consolidation as an important global center of technological innovation, computer microprocessors, which is home to many major technology, software, and internet companies in Silicon Valley in California. In order to drive growth, which has led to manifest urban sprawl in recent decades, the urban planning authority has recently started to envision a redensification plan for Guadalajara's downtown and inner city areas, to accommodate new housing and mixed use development, therefore new vertical housing typologies have begun to emerge in downtown areas that had remained with low density for many years. The increasing vertical housing projects will have an important impact in current trends for neighbors and the new residents.

Urban expansion and sprawl led to degradation of inner-city areas, which have lost population and activities. Moreover, they have resulted in destruction or fragmentation of natural vegetation and landscape at the urban periphery and in rural areas [4]. The questions related to the importance of urban life and diversity have been recognized and discussed as early as during the 1960s by the well-known Jane Jacobs [5]. Many other authors highlight the importance of controlling a disorderly peripheral urban expansion and sprawl for Latin American cities, as urban densification has become a powerful planning norm and alternative of how a city should develop to control peripheral urban sprawl [6–10]. The benefits associated with urban densification have significantly influenced urban planning policy and guidance in western countries [11,12]. Additionally, there is a growing emphasis on the need for urban densification including neo-traditional development, urban containment, the compact city and the eco-city [13], and in particular compact or dense city form [14,15], since it aims to counteract the negative effects of urban expansion and sprawl. The “compact city” is characterized by high density housing, mixed use, public transport (transit oriented development) and a neighborhood in which some basic needs can be covered in a walkable or bicycle way [16]. Densification aims to centralize services and reduce land expansion in the urban fringe, by localizing new developments within inner-city areas, infill development or redevelopment of brownfields [17,18]. Some authors claim long-term social and ecological benefits from urban densification [16], including less need to travel by car (reducing fuel emissions), a more efficient public transport system, with a general reduction in energy consumption [19], together with the contribution to reduce urban sprawl so preserving rural green spaces [20].

Additionally, UN Habitat (2013) has declared unsustainable and failed the “GS20C” (Global Standard Urbanization Model of the 20th Century), based on technical and quantitative tools of planning that did not take into account the complex reality of cities and that have favored processes of spatial segregation, social exclusion, car-based transport models, benefitting individualism, consumerism, privatization of public space and new values and styles of an “artificial” life. It is clear there is a need to rethink the city model for the 21st century that promotes density, social diversity and mixed use, the reduction of dependence on private motorized transport for the benefit of public transport, the promotion of public spaces and streets with lifetime [21].

These measures proposed by the UN imply a redirection of the entire course of current planning. Participatory processes and bottom-up planning have determined a change in trend, but, so far, they do not seem to have sufficiently influenced a substantial transformation of contemporary cities.

In Latin America, as elsewhere in the world, horizontal expansion has proven unsustainable from an environmental point of view and also from a social perspective where the “human scale” of the city and everyday life of its inhabitants have been affected. From all of the above, it is not surprising the recent arise of vertical housing within the urban perimeter, associated with concepts of redensification, compact city and collective living, as it is happening in Guadalajara. However, it remains to be verified whether these proposals are really sustainable and resolve the contradictions and problems of the scattered horizontal city in the most adequate way or if they are just another failed attempt to respond to the problems of the contemporary city. Based on these considerations, an analysis is proposed of eleven new vertical housing buildings located in Guadalajara’s downtown, with the aim to contribute to some conclusions and reflections on contemporary housing and dwelling, which might be extended to Latin American and foreign contexts.

The article is organized into four main parts: Theoretical background, Materials and Methods, Findings and Discussion, Conclusions.

## 2. Theoretical Background: Collective Housing, Dwelling and the City

The theoretical context of this research is derived from the definition of “dwelling” as a essential human act that origins and gives foundation to urban and housing projects. Dwelling implies a construction of meanings and values related to “being” itself [22] and

related to the dimensions of space and time. There is no doubt that housing is closely related to dwelling, not only from a spatial point of view of intimate and domestic refuge, but other aspects including social, economic, cultural, and political. The house is, in effect, a mirror of the culture of dwelling [23] that characterizes each place and each time. Thus, housing, far from being just a private issue, transcends the intimacy of four walls and coincides with the construction of a social space, which is a reflection of each community and society.

Although this may seem obvious, it is not when we think that habitability conditions are not always guaranteed in cities. This is very evident in marginalized areas, which lack the very basic facilities for a proper life, examples that are easy to find in Latin America. On the other hand, it would be a mistake to think that the quality of living is automatically fulfilled in those environments where the economic capacity is sufficient to guarantee the use of quality materials or adequate construction techniques, among other things. The quality of dwelling has to do with ensuring that people can carry out their daily activities effectively [1,24–26], having access to safe, inclusive places [27], and this is not necessarily satisfied by high budgets. In fact, the construction of luxury houses in Latin America has meant, in many cases, the creation of gated communities [1,28–31], with no commerce or equipment and no easy access to the city, where the “privilege” of quality living coincides with spending lots of hours in a car travelling from one place to another.

Then, thinking about architecture and city as an act of dwelling means returning importance to people and to human scale, rethinking housing and its relationship with the urban context from the real and most basic needs of its inhabitants. Dwelling occurs through all the actions that we do on a daily basis, from working, going for a walk, shopping, meeting friends, listening to music or reading a book, among many others. Therefore, it coincides with everyday life and its multiple spheres: productive, reproductive, personal and political [32,33]. Each of them corresponds to a series of activities that take place in a defined time and space [34], so that they have a temporal codependency, since the finite time of 24 h may not allow us to develop them all [35].

Converted to a housing project, the concept of everyday life translates into collective housing inspired by a perspective of living together and sharing common aid. In this sense, there are two aspects to consider, the first one related to project management and the second one to space planning and design.

On participation in management, interesting practices have been established in Latin America since the 1960s with the well known cooperatives of Uruguay, which involve people in the design and construction processes of their future homes, guaranteeing access to decent and affordable housing [23,36]. Although, cooperatives are not necessarily innovative in design, as they cannot include common spaces or shared facilities [37].

In terms of innovation both from a management and design point of view, co-housing represents an important tradition and contribution [38], which has been associated with gender perspective in architecture and urban studies [33,39]. In fact, co-housing is rooted in feminist theories in the United States where women, as early as in 1868, demanded for more inclusive housing and cities, where the private and the public spheres were not separate and the tasks of reproduction could be considered as worthy and important as traditional economic production [37,40]. The feminists’ claim towards a more inclusive housing and built environment reached northern Europe, where the possibility of collectivizing reproductive work tasks, such as cooking and children care, started to be explored in the XX century [37]. In Sweden, Sven Markelius and Alva Myrdal envisioned co-housing as a tool that allows women to combine the spheres of production and reproduction [37,39]. Co-housing experiences are numerous in Europe, and the deep-rooted tradition of the North is recently reaching the South. The Spanish experience is significant, especially in Madrid and Barcelona (with the Ada Colau public administration), where experiences such as La Borda were born with the aim to offer affordable housing options together with non-speculative urban development [41,42]. As pointed out by De Jorge–Huertas [42] in a comparative study between two co-housing buildings, shared spaces (both on the

ground floor or distributed on all the floorplans) are fundamental in order for the users to develop a fuller and more sustainable daily life, and thus is a flexible distribution that permits adaptation over time, according to changing needs. These spatial characteristics, together with the implementation of appropriate collaborative housing policies and tenants participation in all the process, define an innovative housing model [42]. It stays clear that, in Latin America, this is a route that has not yet been explored.

Another important contribution in terms of design comes from mat-building. Defined as the epitome of the anonymous collective, able to give freedom to individual dwelling and spatial appropriation through diverse patterns and interconnections [43], mat residential and hybrid buildings might provide a valid urban solution for a more compact and ostensible city growth, against sprawl [44]. The different transition spaces of mat-housing create a connection and constant exchange between public and private through the intermediate [44,45].

Finally, if dwelling is defined as the sum of activities, related to space and time, that are carried out on a daily basis to satisfy some need and, as a whole, assure the conditions for social reproduction and human progress, then housings and cities defined from the concept of collective and sustainable “dwelling” are those that support rather than impede the development of the daily life of those who inhabit it.

### 3. Materials and Methods

#### 3.1. Research Design

The methodology has been built on the theoretical approach set out above and the “Inhabiting the Present” assessment tools [46]. An analysis matrix has been proposed in order to analyze eleven new housing developments in Guadalajara’s downtown, with indicators divided in four main categories: Environmental Sustainability, Community and Society, Gender and Inclusion, Spatial Quality. These four categories are crossed with five total scales as detailed in the Table 1 below.

**Table 1.** Scales of analysis. Source own elaboration.

<b>Main Scales</b>	A City	Nearby urban context (500 m radius around the building)
	B Building	Building’s common spaces and circulations
	C Housing Unit	It is the interior of the house
<b>Intermediate Scales</b>	AB City/Building	It is the transition scale between the building and the immediate urban context
	BC Building/Housing unit	It is the transition scale that represents the connection between the common spaces and circulations of the building and the house.

Each of the four main categories contains some indicators categorized according to the scale of analysis, as shown below (Figures 1–4).

Category 1: the “Environmental Sustainability” indicators are especially related to the proximity of uses and public transport options, in addition to more strictly architectural issues such as building ventilation and orientations, or the size of the dwellings, among others, as shown in Figure 1.

Category 2: the “Community and Society” indicators, shown in Figure 2, are related to those spatial characteristics that allow appropriation by the inhabitants. They become especially relevant in the intermediate scales AB City/Building and BC Building/House, since it is where encounters take place, where the two spheres of the public and the private meet, generating “*colugares*” [47], border spaces where the common is built.

Category 3: The Gender and Inclusion indicators bring together all those parameters that have to do with inclusion and gender, from the security and accessibility of public space, the presence of facilities that allow the development of daily life in the vicinity of the

home, to the presence in the building and in the home of spaces that favor the development of care tasks, as shown in Figure 3.

Category 4: Spatial Quality indicators are related to materiality, architectural quality, and identity of the place, as shown in Figure 4. These qualities are related to the “atmospheres” [48] of a place, which involve senses, phenomenological perception and the poetics of a space. Although the four categories are qualitative and the analysis leaves a certain margin for the researcher individual interpretation, this last category is undoubtedly the one with the highest degree of subjectivity.

SUBJECT/SCALE	A City	AB City / Building	B Building	BC Building / House	C House unit
1. Environmental Sustainability	A1.1 Nearby Transportation Systems (500 m radius)		B1.1 Natural ventilation		C1.1 Clustered wet areas (kitchens, bathrooms, laundries)
	A1.2 Nearby urban facilities and equipment such as schools, hospitals, medical centers (500 m radius)		B1.2 Use of passive systems		
	A1.3 Nearby grocery shops and other everyday life stores. Neighborhood Walkability (500 m radius)		B1.3 Biophilia & urban gardens		C1.2 Adequate size of the households (not overspaced nor too compacted)
			B1.4 Facade treatment and building orientation		
			B1.5 Adequate and sustainable use of materials and construction techniques		

Figure 1. Environmental Sustainability Indicators. Source own elaboration.

SUBJECT/SCALE	A City	AB City / Building	B Building	BC Building / House	C House unit
2. Community and Society	A2.1 Features of public space and urban equipment: diversity, vitality and representativeness	AB2.1 Visual relationships: windows, balconies	B2.1 Use of rooftops	BC2.1 Access space to the households with a adequate size, that may allow for the appropriation of these areas through objects (flowerpots, chairs, benches, etc.) and activities	C2.1 Adaptability through time
			B2.2 Presence of common spaces		C2.2 Rearrangement of the space for day and night activities (movable/foldable walls and furniture)
			B2.3 Possibility for shared spaces to work (coworking)		
		AB2.2 Transitional spaces: porches, hallways, access patios	B2.4 Possibility for shared spaces to educate and take care of children (homeschool, playgrounds)		C2.3 Productive work areas
			B2.5 Active (comercial, social) ground floor		
			B2.6 Generation of public spaces		C2.4 Play/Study areas
			B2.7 Open circulation that allows visual interactions and encounters		

Figure 2. Community and Society Indicators. Source: Own elaboration.

SUBJECT/SCALE	A City	AB City / Building	B Building	BC Building / House	C House unit
<b>3. Gender and Inclusion</b>	A3.1 Nearby parks and playgrounds (500 m radius)		B3.1 Suitable spaces for wheelchairs, baby strollers and people with limited mobility (ramps, width of corridors, elevators)		C3.1 Dehierarchization of spaces (rooms of similar dimensions)
	A3.2 State of nearby streets and sidewalks: universal accesibility (500 m radius)		B3.2 Storage areas in common spaces (wineries, storage rooms for large objects)	BC3.1 Possibility of spaces for playing/socializing in access areas to housing units and/or in circulations (hallways, stairways)	C3.2 Dehierarchization of bathrooms (possibility of simultaneous use of space for different people/activities) C3.3 Kitchens that allow sharing tasks and are opened to another space
	A3.3 Nearby site security (proper lighting, no closed streets, no walled areas)		B3.3 Common spaces for parking/storing bikes, shopping carts and strollers		C3.4 Suitable storage spaces: pantry, closets, cleaning storage, bookcases, etc C3.5 Suitable space for washing, drying and ironing clothes

Figure 3. Gender and Inclusion Indicators. Source: Own elaboration.

SUBJECT/SCALE	A City	AB City / Building	B Building	BC Building / House	C House unit
<b>4. Spatial Quality</b>	A4.1 Urban design: trees, shadows, lighting, benches, state of parks and playgrounds (500 m radius)	AB4.1 Materials and finishes in transition spaces/areas	B4.1 Materiality and finishes of the building facades: integration with the preexisting context	BC4.1 Open circulation spaces, community courtyards, vegetation in transitional spaces, adequate use of materials	C4.1 Private outdoor area: balcony, terrace or private patio in each house unit C4.2 Natural lighting, proper windows size
	A4.2 Human scale of the urban spaces (500 m radius)	AB4.2 Adaptation of the building to its context: volumetry, human scale, materials			C4.3 Views

Figure 4. Spatial Quality Indicators. Source own elaboration.

Once the analysis matrix was proposed, eleven study cases were analyzed separately, evaluating each of the indicators through a detailed study of the analyzed building, whose plans, sections and facades were redrawn to deepen the observation.

Finally, a closing evaluation was given for each indicator, according to three options: the indicator is fulfilled (green color); the indicator is partially met (orange color); the indicator is not met (red color), showing these final results in a summary matrix, that allowed to observe general and comparative findings between the 11 case studies (this is shown in Section 4).



### 3.2. Research Objective

It is important to underline that the main objective and purpose of this analysis is to make a general assessment of the selected study cases, with the understanding that each of the categories and scales could be enriched by more indicators, constituting thus a subject for deepen evaluation by itself. The research should be considered as a first approach to the selected housing projects, in order to find wide-ranging results showing which aspects are being fulfilled and which are not. Based on these early results, some of the key issues and findings should be explored further in future research.

### 3.3. Case Study Context. Urban Development and Housing in Guadalajara: From Horizontal to Vertical, from the Periphery to the Center

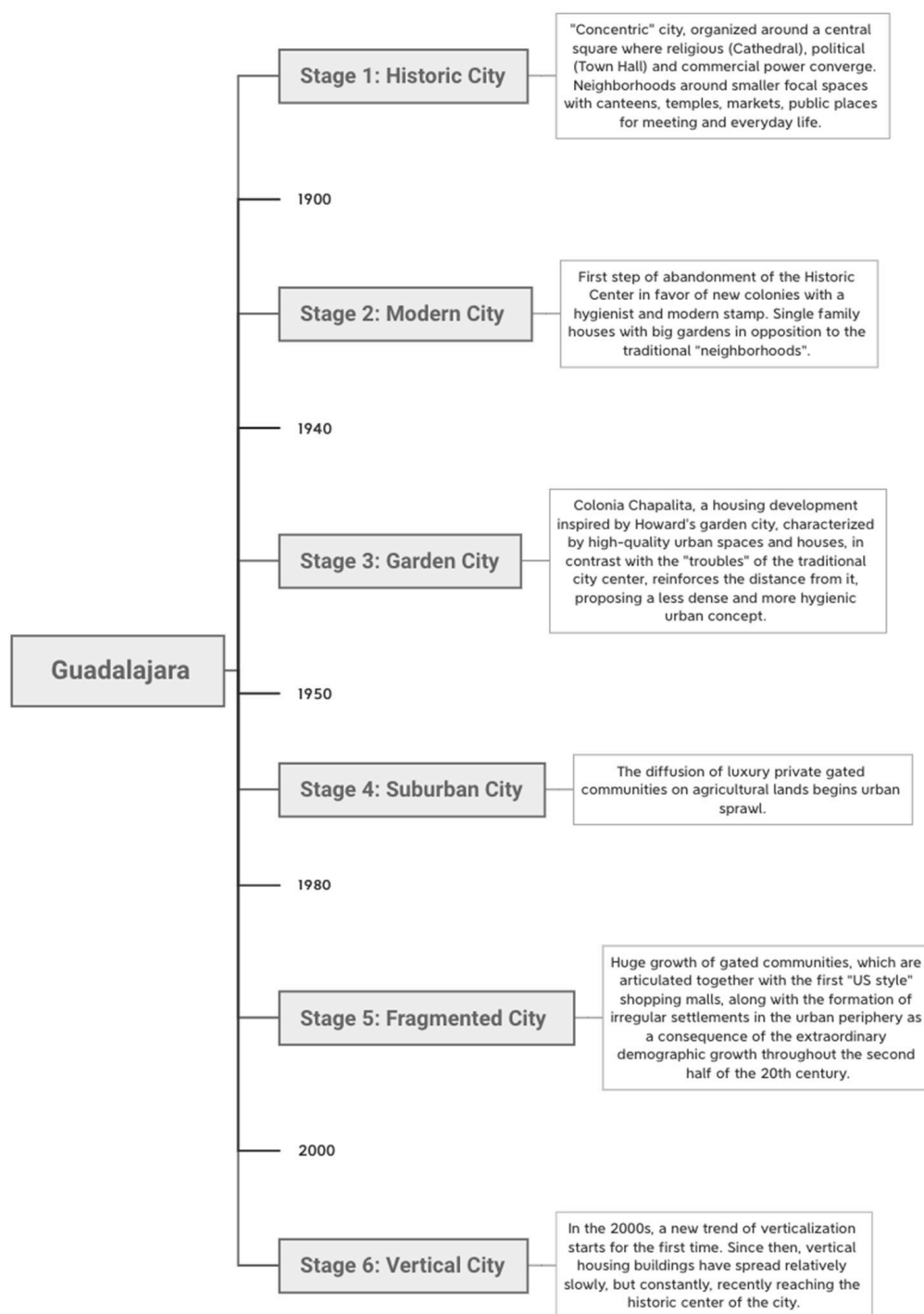
Guadalajara, Mexico's second largest metropolis, located in the west of the country, has experienced, from the 70s, a strong demographic growth, completely saturating its territory with urbanization, which has led to the integration of eight neighbored municipalities, which currently constitute the Metropolitan Area. As briefly discussed in the introduction, Guadalajara's downtown has been progressively abandoned in favor of an extensive horizontal development and, only recently, it is witnessing a redensification of the city center through new housing project.

If we think of a simplified evolution of the inhabited space in Guadalajara, from a chronological point of view, we can recognize at least six main stages: the historical city, the modern city, the garden city, the suburban city, the fragmented city and the most recent vertical city. Although it is a conceptual reduction, it is useful to understand and catalog the new urban characteristics that arise in each historical moment, which are peculiar to Guadalajara, although they are the reflection of global processes and phenomena that we can clearly recognize in other cities in Latin America and in the rest of the world. For clarity, a summary with the six stages is shown in Figure 5 and each stage is explained with more detail below.

The first stage, the "historic city", corresponds to the founding city of the current historical centers of Guadalajara, Zapopan, Tlaquepaque and Tonalá (which are the main and oldest urban centers of the metropolitan area), spatially organized around a central square where religious (Cathedral), political (Town Hall) and commercial power converge. It is the city where spaces were opened for encounters, places with life, the essence of living and dwelling. In this stage, the city was "concentric", made up of neighborhoods arranged around a main center, with the same characteristics of vitality and the same organization around smaller focal spaces with canteens, temples, markets, public places for meeting and everyday life. Also, Guadalajara appears from early on, as a city physically divided by the San Juan de Dios River. The Spaniards, since their arrival, settled in the western part of the river, while the natives were marginalized in the eastern part, as workers at the service of the creole bourgeoisie. At the time of Porfiriato, for hygiene and health reasons, the river was intubated under a new street called Calzada Independencia, which continues to represent an intangible line of division between the rich Guadalajara that lies to the west and the poor to the Oriente [49].

In the second stage, the "modern city", at the beginning of the 20th century, we can witness an abandonment of the Historic Center in favor of new colonies with a hygienist and modern stamp that spread in the west of the city: Francesa, Americana, Moderna, with big houses and gardens in opposition to the traditional "neighborhoods", representing a first step towards the generation of urban spaces not to integrate into the pre-existing city, but to separate from it [28]. Thus, while the historic center, from an "inhabited" place, becomes a "busy" place with the strategic widening of some streets to favor vehicular traffic and with the new vision of the "museum center" operated by Porfirio Díaz [49]. In 1888, Guadalajara was still a grid city of barely fifteen blocks from the Cathedral, but in the following two decades, the order of the grid with facades aligned towards the street and the interior patio, began to be infringed upon. For hygienic reasons, the houses began to be

located in the center of the property, surrounded by large gardens and with ventilation to the outside, while the streets in the historic center were widened from 12–15 m to 20 m [50].



**Figure 5.** Summary of urban development and housing in Guadalajara. Source: Own elaboration.

In the third stage, the Colonia Chapalita (1943) was built, inspired by Howard's garden city, which represents another example of the desire to produce high-quality urban spaces, to escape the troubles of the traditional city [28], which therefore reinforces the concepts of distance from the historic center and proposes a less dense and more hygienic urban concept. The case of Chapalita is a paradigmatic modern reference in Guadalajara, since not only some of the principles of the Garden City were applied, but it also effectively applied the principle of zoning. Although the original design included buildings on a



human scale, green areas and a radial layout with a circular central plaza as meeting point, it is undeniable that this neighborhood contributed to reaffirm the socio-spatial division of Guadalajara, relocating the rich strata to the western sector, reinforcing the process of abandonment of the center, which had already begun with the modern colonies at the beginning of the 20th century [51]. The first modern neighborhoods have in common with the case of Chapalita the separation respect to the pre-existing city, the monofunctional use and the practice of an urbanism focused only on the quality of residential private spaces, which differs from the concept of a traditional mixed neighborhood [28].

In the fourth stage, the “suburban”, starting in the 1960s, the diffusion of luxury private gated communities began the expansion on agricultural lands, imposing and reaffirming horizontality and low density as the prevalent urban sprawl growth model [52].

The fifth stage, the “fragmented city” is characterized by a huge growth of gated communities, which are articulated together with the first shopping malls, returning towards the city center in the 70s. The first “US style” mall of the city, Plaza del Sol, was built in 1968 (followed by Plaza Patria in 1974), starting new lifestyles and consumption patterns and becoming the magnet of a new centrality [53], downplaying the street and the public space as places that generate identity and citizenship [50]. This phenomenon goes along with the formation of irregular settlements in the urban periphery as a consequence of urban expansion, derived from the extraordinary demographic growth that almost doubled the population between 1950 and 1960, an increase that continued with the same intensity throughout the last third of the 20th century. Therefore, from the second half of the last century, the west part of the city ceases to be an exclusive place for the upper classes: a strong phenomenon of socio-spatial fragmentation, where irregular settlements coexist with gated communities converts the polarized city into a fragmented one [54]. It is worth mentioning that the major real estate upswing of gated communities continues until nowadays. The spread of shopping malls is also part of the current trend and new shopping malls have been being built continuously, among them: Gran Plaza built in 1993, Centro Magno in 1998, Plaza Galerías in 2003, Andares in 2008, Punto Sao Paulo in 2009 and Plaza Fórum Tlaquepaque in 2011; and some others are currently under construction, imposing a new concept of consumption and fun that replaces the experience of public space as true substitute, becoming part of the construction of history and identity of the people of Guadalajara.

In the last stage, since the 2000s, a verticalization of the city started for the first time in history, with the first housing towers in Guadalajara, in the Providencia old neighborhood and in the municipality of Zapopan, around the Andares shopping center, starting a new trend in town. Since then, vertical housing buildings have spread relatively slowly, but constantly, recently reaching the historic center of the city, with proposals which aim to respond to new lifestyles, as further detail will be provided by study cases in the next section.

### 3.4. Selected Study Cases. Eleven New Housing Developments in Guadalajara Downtown

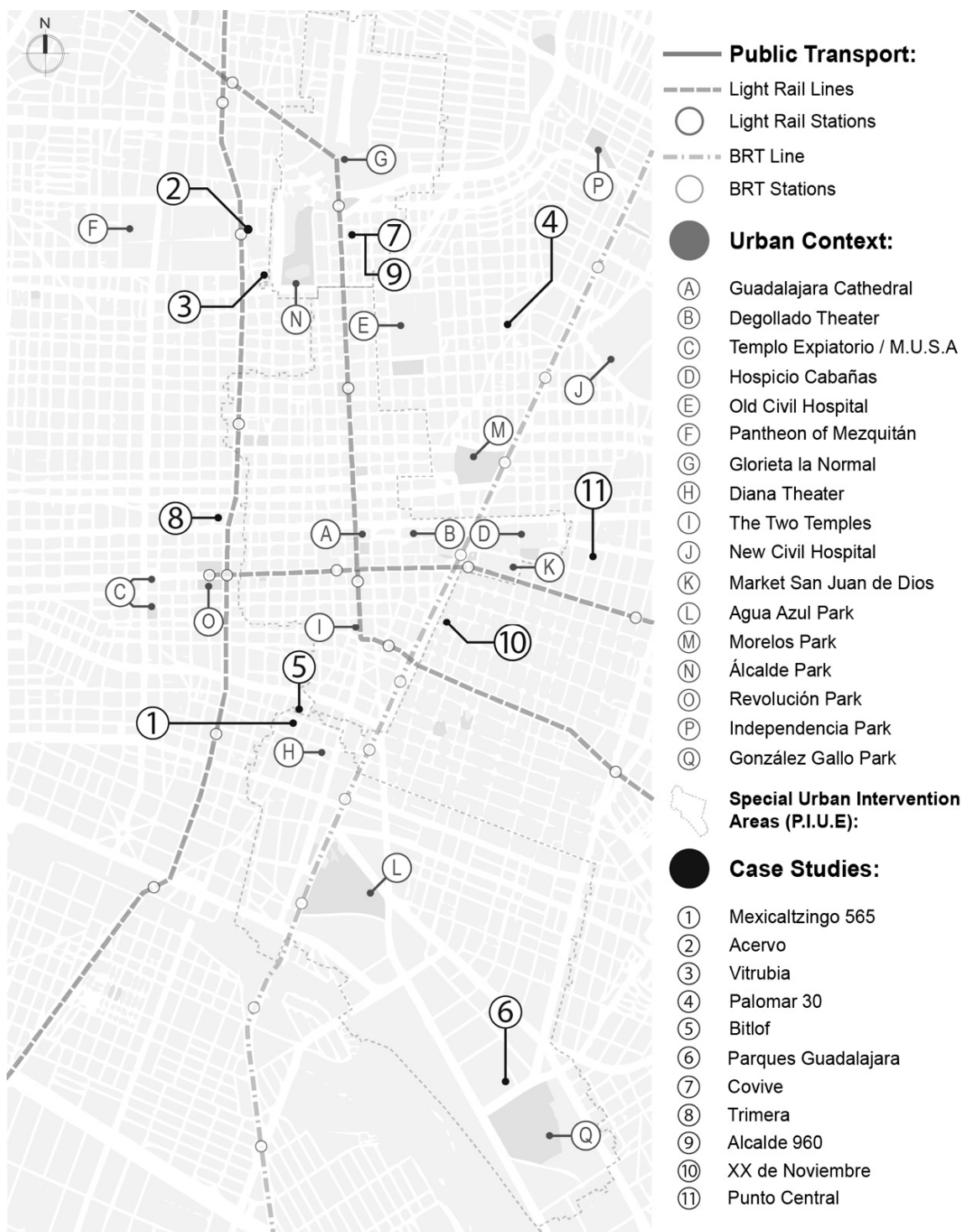
The methodology is applied to eleven vertical mixed use and housing development projects located in the historic center of Guadalajara. As shown in Figure 6, the buildings are different in height, size, number and type of housing units. About “verticality”, it is important to note that the height of the buildings varies from a minimum of 5 to a maximum of 20 floors, so we talk about vertical buildings in the way that they differ from the dominant typology of one or two-story single-family houses which has been prevalent in Guadalajara, as stated before. What they have in common is that they are new buildings, either under construction or in the approved permitting stage, most already with pre-sale housing units, but none is finished yet in march 2021 (except for study case number 4 Palomar, even if it is not fully inhabited). Therefore, what has been analyzed is the approach of the project, although it will be interesting to repeat the study once the buildings are inhabited. A main reason for choosing these eleven projects is because they represent an important amount of new housing development offered in Guadalajara’s historic central area which is nowadays under high transformation pressure promoting

inner redensification. As explained before, these projects have been reaching the city center just recently, therefore it is worth mentioning that they are pioneer developments in this area of the city as no similar buildings have been built in the historic city center before. In the first stage of this research, a total of 17 buildings with these characteristics were identified in the perimeter of the historic center. Out of these 17, 11 examples were selected, being the ones with enough information to develop the analysis, while 6 buildings were discarded because of the lack of detailed information, such as plans and images, since it was not possible to contact the architects or developers or download the information from internet real estate pages. All the projects are intended for the middle and middle-upper classes. Although it may seem obvious, it is worth mentioning that, as well as other Latin American cities, Guadalajara has serious problems associated to the production of housing, related to the scarcity of resources and the fragmented socioeconomic pattern. However, the object of this research is the formal city, the one that materializes from the concentration of economic, social, political and cultural resources, which is just as important as a research subject, since it represents the aspiration and the example to follow.

 <b>MEXICALTZINGO 565</b> Levels: 9 Units: 30 Typologies: 4	 <b>ACERVO</b> Levels: 14 Units: 187 Typologies: 4	 <b>VITRUVIA</b> Levels: 15 Units: 70 Typologies: 5
 <b>PALOMAR 30</b> Levels: 5 Units: 8 Typologies: 2	 <b>BITLOF</b> Levels: 5 Units: 39 Typologies: 3	 <b>PARQUES GUADALAJARA</b> Levels: 14 Units: 1300 (8 towers) Typologies: 4
 <b>COVIVE</b> Levels: 16 Units: 150 Typologies: 5	 <b>TRIMERA</b> Levels: 13 Units: 104 Typologies: 3	 <b>ALCALDE 960</b> Levels: 20 Units: 250 Typologies: 3
 <b>XX DE NOVIEMBRE</b> Levels: 6 Units: 29 Typologies: 3	 <b>PUNTO CENTRAL</b> Levels: 8 Units: 137 Typologies: 3	

**Figure 6.** Basic information about the eleven study cases, showing, for each of them, a real estate image, building levels, total number of housing units and number of different housing typologies in the building. Source own elaboration.

As shown in the map in Figure 7, all the projects are located in downtown Guadalajara, close to important urban spots (A to Q) and to the main long-distance public transport lines, situated either within or close to the historic center special intervention perimeters, where the City Council establishes the applicability of distinctive urban and housing projects, promoting services and mixed use developments, as well as public transport, in order to regenerate the area.



**Figure 7.** Location plan of the 11 study cases, showing the main urban spots (A to Q) and the principal long distance rapid transport lines and stations. Source own elaboration.

The eleven study cases propose an alternative urban and sustainable lifestyle, through slogans that point to a glorious return to the center of the city (“back to the origins”, “every start of a great city begins in the center”, “Downtown Guadalajara reawakens”, “central dimension”). They also emphasize urban proximity as a differentiator (“live close to everything”, “live in the center and take advantage of all its benefits”, “urban mosaic”) and highlight a new paradigm of housing and the city (“the new way of seeing Guadalajara”). In some cases, there is a clear intention towards generating affordable housing options in the city center, as in the case of Parques Guadalajara (“buying your apartment is possible”). Although all the projects are developed under a traditional real estate scheme, in some cases, such as CoVive, reference is made to more innovative collective housing models. In general, we can affirm that there is a clear intention towards the construction of a new collective and sustainable dwelling, which is manifested in various ways.

#### 4. Findings and Discussion

As already mentioned, this study must be understood as a first exploratory approach on what is happening with new housing projects in Guadalajara downtown. According to these first findings, studies can be proposed that deepen each one of the aspects. Based on the analysis, whose results are summarized in Figure 8, at least six main points can be highlighted as findings of this preliminary study, as explained below. Please note that all the observations (Section 4.1, Section 4.2, Section 4.3, Section 4.4, Section 4.5, Section 4.6) are related to Figure 8, where the green color indicates that the indicator is met, the red color that it is not met and the orange that it is only partially met.

##### 4.1. Favorable Urban Environment

A1.1 to A1.3 indicators in Figure 8, at city scale, are fully met in all the cases, showing that buildings are located in urban environments which are well served by public transport and well located in terms of services, equipment and commerce, which is not surprising given that we are approaching a central context. Moreover, the rest of indicators at city scale (see A3.1 to A3.3; A4.1 and A4.2 in Figure 8) show that the urban environment is quite well maintained, including public spaces, parks, playgrounds and other green areas, which reflects the will of the local government to generate quality spaces in the city center with the implementation of pocket parks and urban corridors, in addition to the recent urban intervention in Paseo Alcalde (where the two study cases number 7 and 9 are located), one of the most important and trafficked thoroughfares in the city, which was pedestrianized along 2 km in the historic center, generating quality public space with which the blandly new housing projects must now be related. An example of analysis at city scale is shown in Figure 9.

##### 4.2. Relationship between the Buildings and Their Immediate Context

At an intermediate building/city scale, as shown by indicators AB4.1 and AB4.2 in Figure 8, the projects appear to be quite out of scale due to their pronounced verticality. Only in the two cases of 5 BitLoft (as shown in Figure 10) and 10 XX de Noviembre, we can notice a search for identity and scale more in line within their context. The study case number 7 Co-vive is also meeting with AB4.1 (materials) and AB4.2 (volumetry) indicators (see Figure 8). Despite to its 16 storeys, Co-vive is designed according to the scale and form of nearby church and historic buildings. On the other hand, according to B2.5, most of the buildings are mixed use and have an active ground floor, in addition to maintaining a good visual relationship with the urban context through windows and balconies (AB2.1), even though just in a few cases we can observe a real generation of open public space at ground floor (B2.6).

		1 Mexicaltzingo 565	2 Acervo	3 Vitruvia	4 Palomar 30	5 Bitlof	6 Parques Guadalajara	7 CoVive	8 Trimera	9 Alcalde 960	10 XX de Noviembre	11 Punto Central
1. Environmental Sustainability	Scale A CITY											
	A1.1											
	A1.2											
	A1.3											
	Scale AB CITY / BUILDING											
	Scale B BUILDING											
	B1.1											
	B1.2											
	B1.3											
	B1.4											
	B1.5											
	Scale BC BUILDING / HOUSE											
	Scale C HOUSE UNIT											
	C1.1											
	C1.2											
2. Community and Society	Scale A CITY											
	A2.1											
	Scale AB CITY / BUILDING											
	AB2.1											
	AB2.2											
	Scale B BUILDING											
	B2.1											
	B2.2											
	B2.3											
	B2.4											
	B2.5											
	B2.6											
	B2.7											
	Scale BC BUILDING / HOUSE											
	BC2.1											
	Scale C HOUSE UNIT											
	C2.1											
	C2.2											
	C2.3											
	C2.4											
3. Gender and Inclusion	Scale A CITY											
	A3.1											
	A3.2											
	A3.3											
	Scale AB CITY / BUILDING											
	Scale B BUILDING											
	B3.1											
	B3.2											
	B3.3											
	Scale BC BUILDING / HOUSE											
	BC3.1											
	Scale C HOUSE UNIT											
	C3.1											
	C3.2											
	C3.3											
	C3.4											
	C3.5											
4. Spatial Quality	Scale A CITY											
	A4.1											
	A4.2											
	Scale AB CITY / BUILDING											
	AB4.1											
	AB4.2											
	Scale B BUILDING											
	B4.1											
	Scale BC BUILDING / HOUSE											
	BC4.1											
	Scale C HOUSE UNIT											
	C4.1											
	C4.2											
	C4.3											

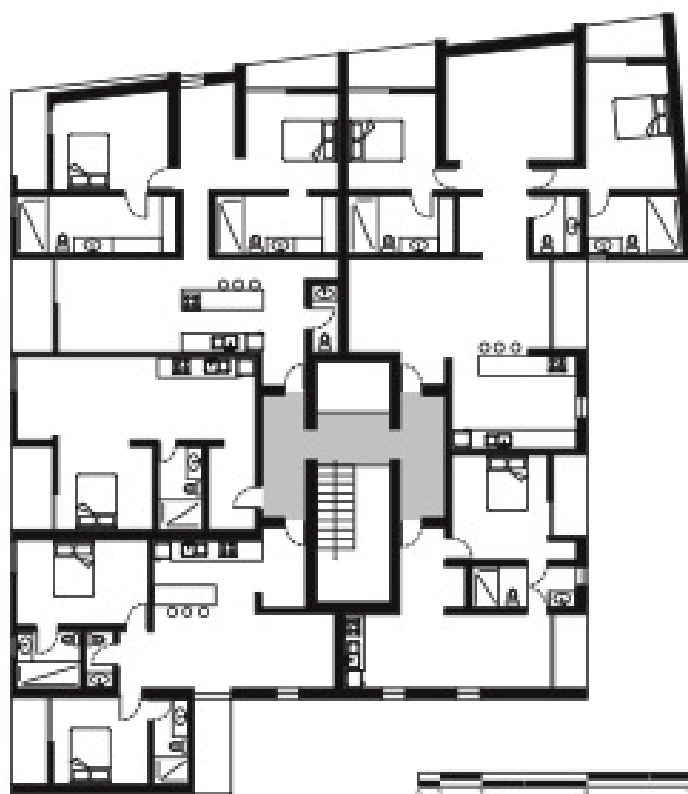
**Figure 8.** Study cases analysis matrix where the green color indicates that the indicator is met, the red color that it is not met and the orange that it is only partially met. Source own elaboration.







favor the appropriation of the outside, leaving the private interior as the only “appropriate” space, as shown in the example in Figure 11.



**Figure 11.** Example of lack of appropriation space and open circulation in study case number 1 “Mexicaltzingo 565”. Source own elaboration.

#### 4.4. Lack of Innovation in Housing Typologies

The apartments, despite being proposed as innovative according to the concept of a new lifestyle, show the traditional hierarchy of spaces as shown in Figure 12: main room with private bathroom, secondary rooms linked to a second shared bathroom, living/dining room, kitchen and, in some of the cases, laundry rooms and an extra half bath. The typologies do not meet the adaptability criteria, neither over time (family changes) nor over the course of a day, and they seem to lack of flexible areas for activities such as play or work (C2.1 to C2.4 in Figure 8).

#### 4.5. Gender

Regarding the gender indicators, most of the typologies have open kitchens that favor family interaction and are not configured as closed workspaces, fulfilling the C3.3 indicator (Figure 8). In addition, most of the apartments meet adequate spaces for the cycle of clothing and for storage (C3.4 and C3.5 in Figure 8). However, on the building scale, it is noted that there is a lack of support spaces for care (for example children play areas or storage), as shown in Figure 8 by B3.1 to B3.3 and BC3.1 indicators, despite the many “amenities” that each building boasts.

#### 4.6. Management

There is an important part in the conceptual approach of the present analysis that has to do with the management of housing projects. In this case, it has been observed from an early stage of the study, that all the projects are being developed according to a traditional real estate development scheme with units for sale or rent at market prices. The sale is also promoted as an investment option, encouraging in some cases the purchase

of one or more apartments to get profit by renting them on platforms such as airbnb. So it does not make much sense to do a detailed analysis of the management processes, as they all fit into the same scheme. However, it is important to highlight that an alternative and innovative approach to management, such as in cooperatives, co-housing or other management schemes that include participation, might be an interesting way to go towards a housing offer that is truly based on real needs and on “dwelling” as defined for the purposes of this research. This could therefore fulfill the purpose of rethinking a collective and sustainable housing in a more compact, dense and inclusive city.

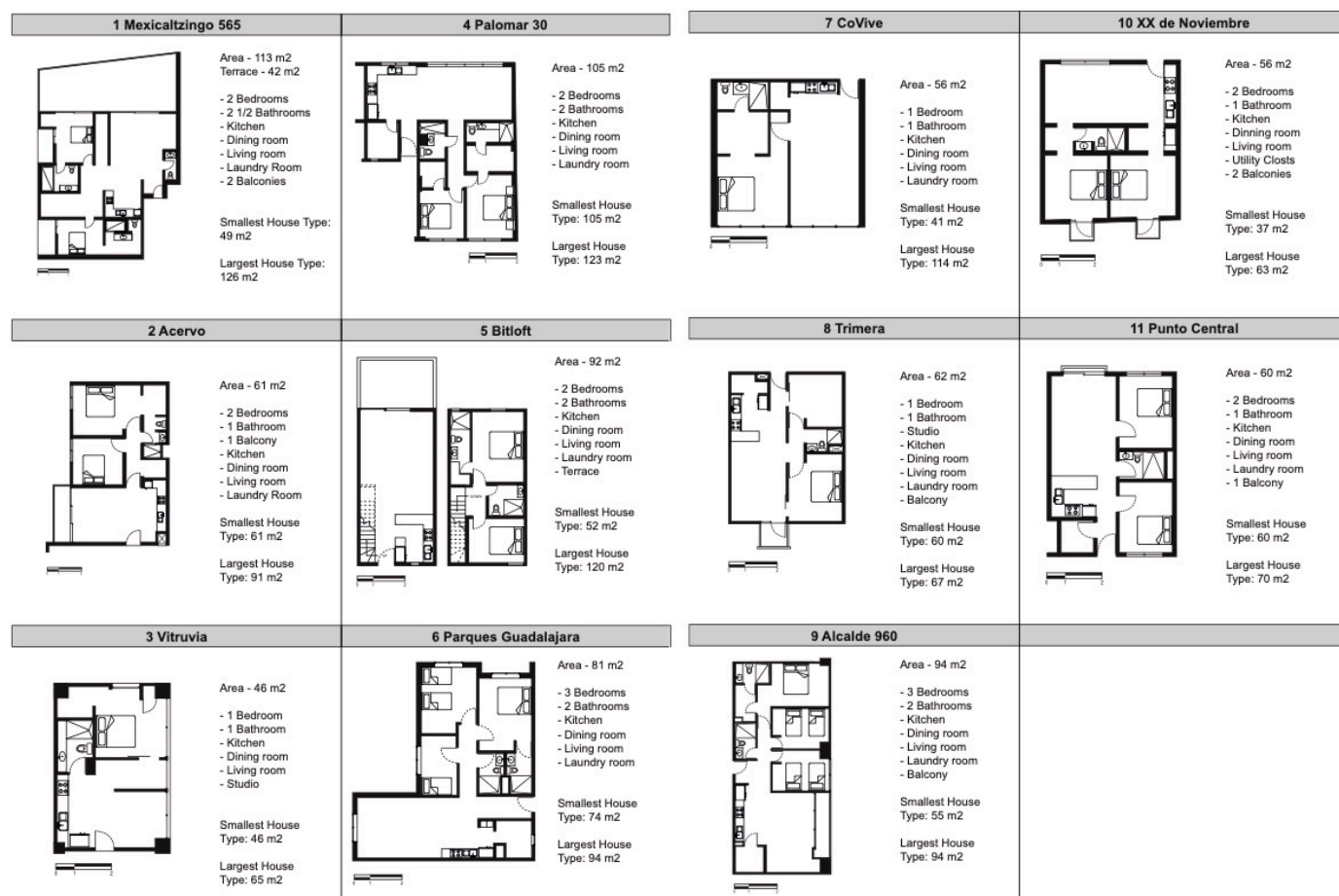


Figure 12. Summary of typologies showing traditional floorplans layouts in study cases. Source own elaboration.

## 5. Conclusions

The analysis of the eleven study cases shows that, despite the declared intentions of developers and urban authorities towards the construction of new urban habitats closer to human scale, the projects, in spatial and design terms, not necessarily fulfill the aim to accommodate “new” lifestyles through innovative proposals. After decades of horizontal expansion, housing returns to downtown Guadalajara, under the principles of a new, denser and more compact city, served by better public transportation. However, the risk is to focus on the construction of images that are more focused on sales and marketing rather than on promoting a real change in the way we plan housing and the city.

The analysis of dwelling and everyday life, in all its facets, might give concrete answers to the urban and housing question from an innovative qualitative approach, proposing projects that really aim to improve people’s lives, changing the quantitative focus that has long been predominant and proved not to be so effective. Studies such as the one proposed in this article make possible to link academic research with reality, since they may be able to provide recommendations for the design of new residential buildings.

In fact, from the results of this research, some recommendations can be direct to stakeholders involved in the process of Guadalajara inner redensification. Urban authority and policy makers could set some guidelines with principles about new housing project to get a true sustainable densification of city center. Especially, intermediate scales and shared spaces and facilities should gain importance in the design process in order to guarantee a sustainable everyday life based on gender and reproduction. Regarding housing typologies, instead of repeating a rigid scheme for a traditional nuclear family, the possibility for the user to adapt spaces to changing needs should be introduced.

Other important aspects that should be addressed, beyond the design, are the ones related to the management models, introducing participation as a common practice. As we could observe, all the analyzed projects are promoted from a traditional real estate investment scheme, while involving new actors and alternative management models (for example, cooperatives, co-housing, citizen participation) would allow to overcome the limits of these projects and to stop perpetuating housing models that, although are getting close to the urban context, are far from being proposed as alternatives of collective and sustainable dwelling.

Finally, it is clear the necessity to deepen these research topics that are so relevant to contemporary cities, which might allow to strengthen the paradigms of an inclusive, sustainable and compact city, in the construction of a more solid culture of dwelling that is so much needed in Latin American cities.

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