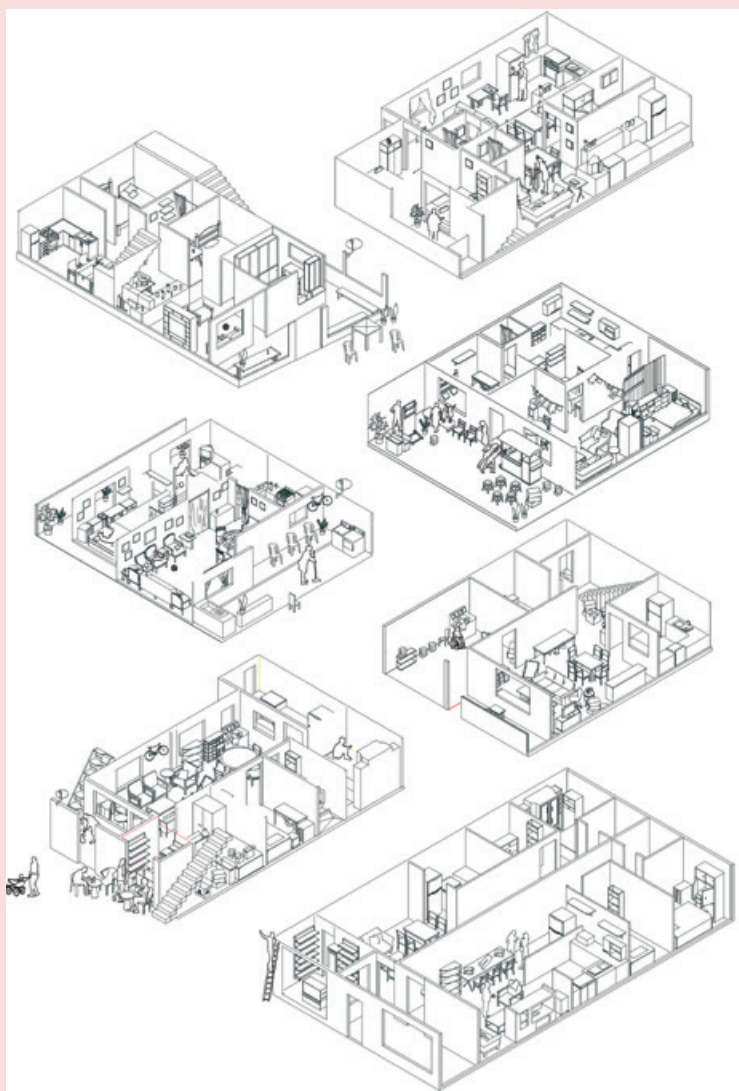


THE SOCIAL SYSTEM OF THE HOUSE. IN THE CONSOLIDATED INFORMAL DWELLINGS OF GUAYAQUIL

El sistema social de la casa. En la vivienda informal consolidada de Guayaquil

O sistema social da casa. No alojamento informal consolidado de Guayaquil síntese



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Ground floor of
the 7 case studies
analysed in the
research project
of which this text
is the result and
for which 4 were
selected.

Source: Photograph
by the author
(2018).

ABSTRACT

The post-pandemic crisis of contemporary housing, triggered by COVID-19, only but extends, to the entire world, many of the questions in which, permanently, housing is immersed within, in an ongoing crisis of developing countries. How to make houses more shareable, flexible, transformable, productive, participatory, livable, etc.? In that sense, by studying low-income housing in these countries, it is possible to analyze alternatives to the current dwellings, that arise from informality as a response to those questions shared worldwide today. This article describes part of a research carried out at Universidad Católica de Santiago de Guayaquil, which analyzes the physical and social transformations in consolidated informal dwellings within the city center. The techniques used, include planimetric surveys of case studies, interviews to users, and mapping out the use of the dwellings throughout the day. The analysis focuses on the interaction exerted between several nuclear families inside the dwelling and their objects. Thus describing a habitat transformational and production system linked to objects, where the dwelling is understood as a social system of objects and people, in continuous interaction and transformation.

Keywords: Informal housing, social transformation, systems design, collectivity, multifamily housing, multifunctional objects

RESUMEN

La crisis post pandémica de la vivienda contemporánea, desencadenada por la COVID-19, no hace sino extender a todo el planeta muchas de las cuestiones en que se hallan inmersas, de manera permanente, las viviendas en continua crisis de los países en desarrollo. ¿Cómo hacer nuestras casas más compartibles, flexibles, transformables, productivas, participativas, habitables, etc.? Por ello, un acercamiento a la vivienda de bajos recursos de estos países permite analizar alternativas a la vivienda actual, que surgen desde la informalidad como respuesta a aquellas preguntas que nos hacemos hoy todos. El siguiente documento describe parte de la investigación llevada a cabo desde la Universidad Católica de Santiago de Guayaquil, que analiza las transformaciones físicas y sociales en la vivienda informal consolidada del centro de la ciudad. Las técnicas que se utilizan incluyen el levantamiento planimétrico de casos de estudio, entrevistas a los usuarios y el mapeo del uso de las viviendas a lo largo del día. El análisis se centra en la interacción que se ejerce entre los diferentes núcleos familiares de la casa y sus objetos, llegando así a describir un sistema de transformación y producción de hábitat ligado a los objetos, en donde la vivienda es entendida como un sistema social de objetos y personas en continua interacción y transformación.

Palabras Clave: Vivienda informal, transformación social, diseño de sistemas, colectividad, viviendas multifamiliares, objetos multifuncionales

RESUMO

A crise pós-pandémica da moradia contemporânea, desencadeada pela COVID-19, apenas estende a todo o planeta muitas das questões em que estão permanentemente imersas as casas em crise contínua dos países em desenvolvimento. Surge, portanto, a seguinte questão: como tornar as nossas casas mais partilháveis, flexíveis, transformáveis, produtivas, participativas, habitáveis, etc.? Neste sentido, uma abordagem dos problemas habitacionais de populações de baixa renda nestes países permite analisar alternativas aos modelos de moradia atuais que emergem da informalidade como uma resposta às questões que todos nos colocamos hoje. O seguinte documento descreve parte da pesquisa realizada pela Universidade Católica de Santiago de Guayaquil que analisa as transformações físicas e sociais na estrutura habitacional informal consolidada do centro desta cidade equatoriana. As técnicas utilizadas incluem o levantamento planimétrico de casos de estudo, entrevistas aos usuários e o mapeamento do uso das estruturas ao longo do dia. A análise se centra na interação entre os diferentes núcleos familiares da casa e seus objetos, descrevendo, assim, um sistema de transformação e produção de habitat ligado aos objetos no qual a estrutura habitacional é entendida como um sistema social de objetos e pessoas em contínua interação e transformação.

Palavras-Chave: Moradia informal, transformação social, concepção de sistemas, coletividade, habitação multifamiliar, objetos multifuncionais

INTRODUCTION

This article presents part of the results of an investigation of Universidad Católica de Santiago de Guayaquil, that analyzes the interaction between the users of the dwelling and its objects, as well as the influence that these jointly have in the generation of meetings inside and outside the house.¹ The research analyzes, using questions such as, what relationship is there between the house, its things and the people that live there? or, what transformations do the different groups of people and the objects have?, several cases of a consolidated informal dwelling neighborhood of Guayaquil.

The neighborhood studied, Santa Maria de las Lomas, is one of the informal settlements that has been left immersed in the urban scheme of the city. The result of a relocation, its consolidation has developed over six decades outside municipal regulations, self-regulating itself through neighborhood committees and cooperatives². This process has brought the different families closer. The site of the settlement is also right next to the campus of Universidad Católica de Santiago de Guayaquil. As a result, a symbiotic relationship has emerged over the years and grown stronger, leading to interesting supra-familial relationships.

The university students and workers are an example of these, eating daily in one of the neighborhood's dwellings, or playing sport on the streets with the neighbors. The families organize to move part of the furniture out of their houses, temporarily filling the street with objects like tables, tents, mobile stoves, swimming pools, goalposts, volleyball nets, etc. In this way, a direct relationship emerges between the groups of objects from the different dwellings and the meeting of people from the neighborhood and the university.

The capacity of the objects to keep up with the rhythm of people, contrasts radically with the rigidity of the house, which endures the limitations of an imported, ineffective construction system. The dwelling model suggested by modernity, a century after its appearance, continues to prevail. The *Domino* system has been accepted around the world as a paradigm of housing architecture, despite the rigidity of its concrete structure which, in its *bricolage* version, loses its structural independence, ultimately waiving the promised flexibility of content³. Modernity erupted into the domestic territory as a "work of purification", that opposed the existence of impure and hybrid objects. As a result, both its constructive and spatial system, as a regulation (at a house and city scale), resist free modernization, consigning the possibilities of change to inside the house.

This means that transforming the dwelling is normally restricted by the regulations and that, if changes are allowed, these would be very difficult to implement in practice. The transformation becomes even more complicated in informal dwellings, where self-builds – accelerated by the urgent needs of the city – lead to clumsy restructuring in attempts to add a new room, a new floor, divide the access in two, on so on.

However, the will for transformation is not the exclusive domain of informal dwellings. The sanitary restrictions COVID-19 has brought, have generalized the issues that dwellings, in permanent crisis in developing countries, were already facing. Issues that affect low-income dwellings, like the rigidity of the habitat model or its inability to immediately react to new changes, have today become universal.

The modern model, and its intended formal purity, has been deliberately distancing itself from an increasingly hybrid and unequal culture, where working with other non-architectonic areas becomes essential for development and innovation in housing. Housing demands the capacity to easily incorporate the latest advances, whatever they may be: programmatic, social,

1 From Universidad Católica de Santiago de Guayaquil, UCSG, several research projects have addressed the relationship between the progressive growth of families and the transformation of their dwellings and the adjoining public space (Mora, 2013, de Teresa, 2015, Mora, Viteri & De Teresa, 2017), resulting in several articles and a PhD thesis at Universidad de Granada, "Sistemas de Transformación en la Vivienda Informal Consolidada: caso de Santa María de las Lomas, Guayaquil" (De Teresa, 2017). This article is fundamentally based on the results of the project "Study of the collectivity generation in the consolidated informal dwelling: the case of Santa Maria de las Lomas, Guayaquil" (Mora et al., 2017).

2 The neighborhood of Santa Maria de las Lomas is located in the geographic center of Guayaquil, enclosed by Avenida Barcelona, La Fuente citadel, and UCSG. It comprises 200 dwellings, which practically all provide shelter to more than one nuclear family. The first settlement emerged at the end of the 1950s, the result of the eviction and relocation of a group of settlers from the La Atarazana area, for whom the first 50 reed huts were built. The families were initially organized through a Neighborhood Committee, and later, in 1969, in a Cooperative. However, their legalization only took place in 1980, although the formal supply of public services, paving of streets, drinking water, sewers, and electricity, appeared later (De Teresa, 2015).

3 In informal construction, brick walls tend to be used as support for concrete beams, as such the structural independence from the enclosures is lost (Hernández, Kellet & Allen, 2012, p. 29).

4 Hans Rosling, in his book *Factfulness*, argues that, in these cases where there tends to be no access to a bank, the best way owners have of investing with the broken income they obtain, is buying bricks that they add to their dwelling. In this way, apart from improving their home, little by little, they ensure that nobody steals their bricks, and that these are not devalued over time, as happens with money (2019, p. 188).

5 The parameters that determine the concept of "consolidation" of informal housing have been developed in the article "Aproximaciones familia-casa" (De Teresa, 2016a).

6 Rafael Iglesia (2011) describes how the slow transformation of certain daily objects over the centuries, like hammers or wrenches, until reaching what they are today, is based on a continuous critique of the preceding model, following a process that is more natural than artificial.

METHODOLOGY

productive, environmental, technological, energy, waste management, on so forth. Innovation and invention must be able to immediately reach the domestic space and, in particular after the pandemic, users throughout the world, will demand being a direct participant in these incorporations.

The informal dwelling, due to its ongoing state of crisis, has always cried out this need for immediate transformation. Generally, its users do not have access to bank loans to finance the construction of their home in one go, and need to add changes little by little⁴. Facing the rigidity of the house to incorporate these changes, the furniture and the other objects seem to take on the responsibility of transforming use of the space. Instead of adding a new room, the objects become responsible for subdividing the indoor space or of hybridizing its use.

The house, on one hand, and its things, on the other, have different natures, even opposite to one another. Although the house tries to be a single perfect and non-deformable object, the countless objects within it, seem to form a system of elements that, most likely as a reaction, incessantly move and regroup. For this reason, the nuclear families and household objects are at the heart of this research, which tries to discover the role the latter may have in the transformation of the housing system.

The consolidated informal dwelling⁵, and its way of adding changes that do not follow code, becomes a direct critique of the modern housing model; a slow critique, that for decades has relentlessly changed the shape and use of the house⁶. One that has been highlighting and responding to issues like several nuclear families cohabiting, or the need to generate income. For this reason, it represents a valuable field of experimentation, where the transformation the family has experienced, along with the house, can be analyzed, as parts of a social system in constant evolution.

This work shows four of the seven dwellings analyzed in the research project. These encapsulate the main findings and allow making conclusions by comparing them. Both the social changes that each one of the four analyzed family groups have experienced, and the physical transformations of their dwellings, are unique. This means that the way in which the physical and social limits imposed by the house⁷ and by the family are bridged, has also changed.

The four family groups analyzed comprise more than one nuclear family. Their number and social structure is also different, as is the transformation process they have experienced since their origin. The same happens with their dwellings, which differ in size, spatial organization, and relationship with the immediately surroundings. Because of this, each case has particular characteristics that affect their physical and social organization: some create dense intrafamily networks, while others, supra-family relationships with neighbors and with personnel from the neighboring university. Some cases move objects outside the house and others bring public objects into the dwelling.

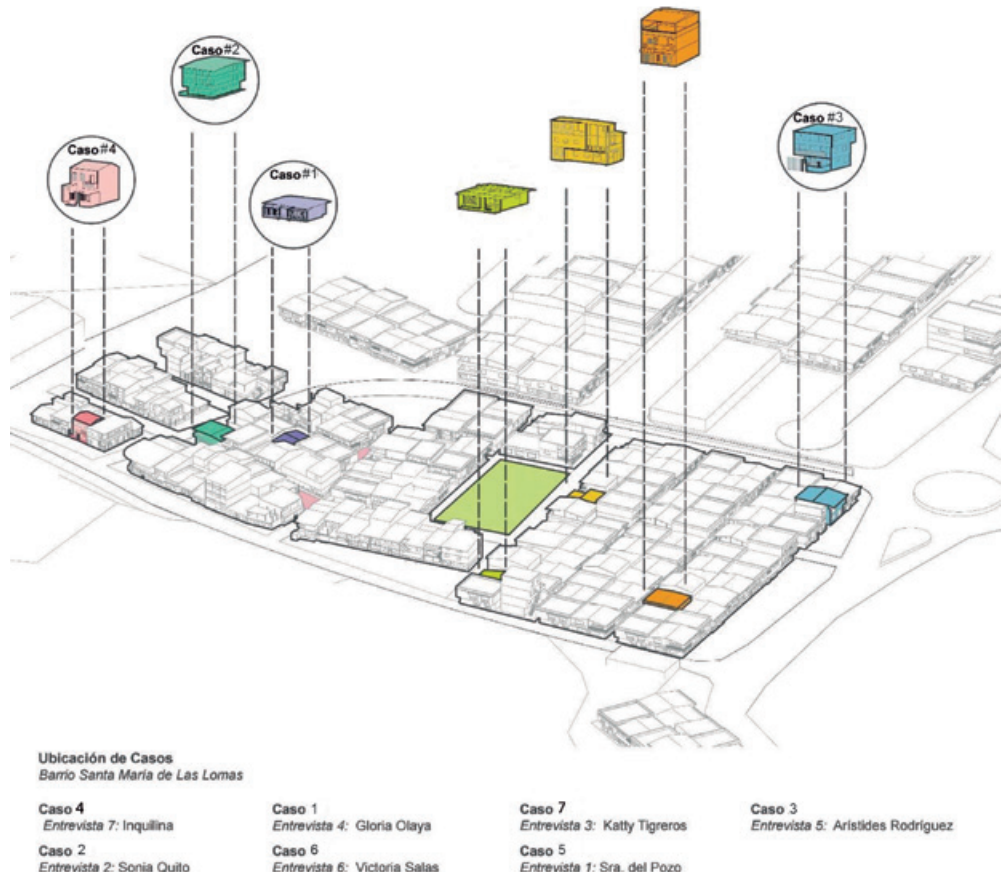
Figure 1 shows the location of the four case studies selected in the neighborhood:

- Case N°1: three nuclear families / seven members / single floor dwelling without major changes over time.
- Case N°2: five nuclear families / nine members / dwelling on three levels with major changes since its construction.
- Case N°3: two nuclear families / nine members / three-floor dwelling with significant changes.
- Case N°4: (Tenant) / two nuclear families / three members / dwelling with shops on the ground floor belonging to the family.

7 In this text, "dwelling" is defined as a habitat system comprising different objects, among which the "house" is the biggest of all. The "house" is understood as just another object, whose relationship with the rest of the objects is by inclusion. The "dwelling" encompasses the house and the rest of the domestic furnishings and objects.

Figure 1

Location of the cases selected in the Santa María de las Lomas neighborhood. Source: Photograph by the author (2018)

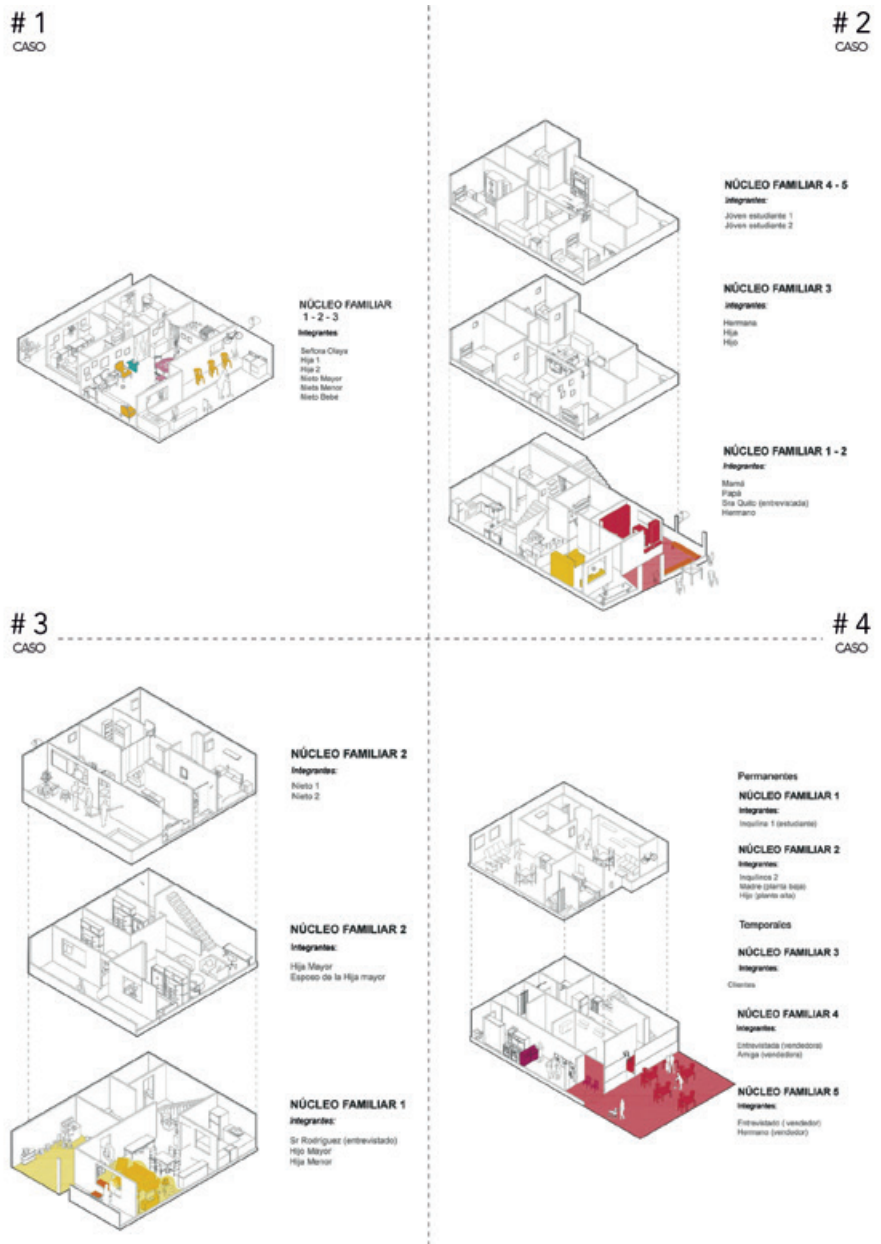


The research analyzed the gatherings between different nuclear families, the dwellings, their spaces, and objects, both inside and outside the house. For this, detailed planimetric surveys were made (floor plans, section plans, and axonometries) of the dwellings and their domestic furnishings⁸ and semi-structured interviews were made with the users to analyze their activity throughout the day. Alongside this, the movements and groupings of people and objects were observed, looking to uncover the influence the latter had on the generation of collective activities. Finally, interviews were made to unearth the movements and activities each member of the family had, the space where these take place, and the objects they interact with. Together, the plans, interviews, and observations allowed creating maps of the movements and interactions between the people and the objects during the morning, afternoon and evening [Figure 2].

People and objects, both in the usage maps, and in the rest of the planimetry, have been considered as equal subjects of graphical representation. In this way, the people and their objects have been understood as sets with mutual influence. It has shown the role that the system of objects of the house has in the generation of activities and in the way their movement is able to change the use of the space in each case. The plans show both the inside of dwellings, and their immediate surroundings towards the street. In this way, activities that take place on their boundary, and the gatherings between users of the dwelling and their neighbors, or with people from outside the neighborhood, can be analyzed.

8 Santiago de Molina analyzes, under the title "The invasion of the objects" (2013), the role these play in domestic life. In his thesis on the "Architecture Collage" (2014), he develops this concept of architecture as a sum of events.

Figure 2
Comparative axonometries of the most used spaces and furniture inside the house. Source: Photograph by the author (2018).



RESULTS

The movement of objects inside the house changes intrafamily relationships, and this becomes even more significant on passing the boundary between the house and the street. Through this, the movement of objects is produced bidirectionally. On one hand, outside the house, to create ludic or productive activities with neighbors (card games, swimming pools, volleyball courts, tables and mobile stoves to offer snacks, etc.). And, on the other hand, inside the dwelling, incorporating to the domestic repertoire, public objects like altars to informally hold mass, or picnic tables to turn living rooms into restaurants at certain times.

Therefore, the objects have the ability to strengthen intrafamily relationships between the different nuclear families, and to establish supra-family relationships with the neighbors. This is because of the possibility to temporarily use the public space and to bring informal public activities into the dwelling. These two situations have been defined as incursions and excursions, respectively [Figures 2 and 3].

Figures 3 and 4

Excursions. Painting workshops with students, mobile stoves for evening snacks, tents, improvised dining areas with plastic crates, etc., the volleyball net and the sign with the rules of the game on a lamppost that lights the court, etc. (similar to the car).
 Source: Photograph by the author (2019).



INCURSIONS

In Figure 2, the spaces that allow incursions into the dwellings can be seen. In Case N°1, for example, activity mainly takes place in the living room: by reorganizing chairs and the rest of the furniture, this room is redefined, converting it in a space for worship. In Case N°2, the most used space is the porch, where there is a store/bar. In addition, at certain times, patrons enter the dwelling when they use the restroom, extending the activity into the house, and sharing with the family in the private spaces. Case N°3 is the one with the lowest degree of incursion, since this is a shop that interacts with the outside through a window. Finally, in case N°4, it can be seen that the ground floor, on being destined to a purely commercial activity (cyber-café), is the one that allows the highest flow of people inside and outside the dwelling.

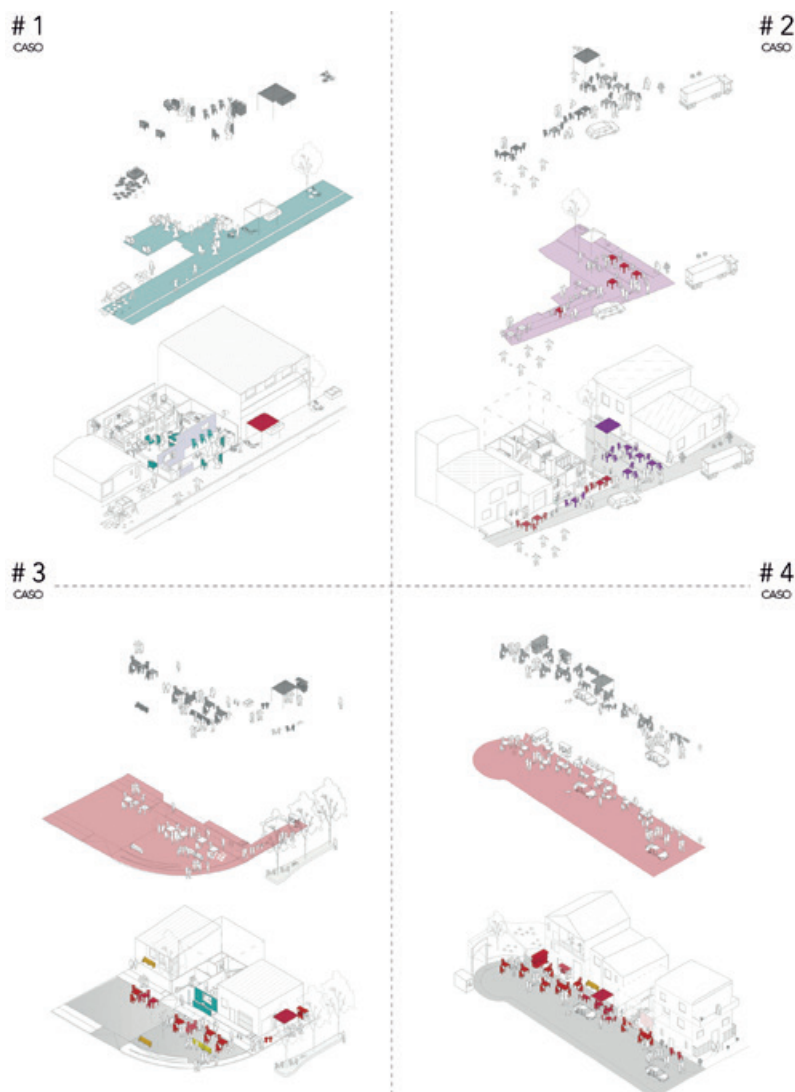
These incursions come from social activities, holding mass, raffles or bingos, generally with neighbors, commercial activities, in adapted bars or shops, that also include the university community, that take place thanks to the flexibility inside the dwelling, which is able to alter its initial setup, with new uses throughout the day. The dwellings often turn to mobile elements like curtains or panels to solve unforeseen issues, visually splitting areas of the house or, otherwise, temporarily moving objects between the different sites. That is to say, the spatial fragmentation the setup originally had, is later altered by the real use. The axonometries of the dwelling [Figure 2] show the leading role of the object against the housing.

EXCURSIONS

Figures 3 and 4 illustrate the temporary movement of objects onto the street: tents, stoves, swimming pools, tables, or chairs. These objects are responsible for the generation of community activities outside the dwelling. What begins as a public space, temporarily appropriated by a single family, is filled by others, and adds university students. The families do not have enough indoor space to provide services, nor do they have access to financing to add these on their own lot. As a result, they opt to accommodate outside, the objects needed for the commercial activity they are involved in.

From the selected cases [Figure 5], N°1 is the one that has the least relationship with the outside. However, in the afternoons and evenings, the family uses the curb to sell fast-food, adding a small collapsible cover. In case N°2, it is seen that the store operating inside the dwelling, has a small space with seats on the curb. However, people at the weekend and in the evenings crowd around the house. This is because the family, along with their neighbors, take advantage of the curbs and streets to organize bingos. In case N°3, the family makes use of a public parking area and adds some municipal benches to sell food. Finally, in case N°4, which is closest to the university, food carts, chairs, and tables can be seen, which the family and neighbors place on the street, generating a commercial corridor to provide services to university students.

Figure 5
Comparative axonometries with the moving of domestic furniture onto the street.
Source: Photograph by the author (2018)



BOUNDARIES

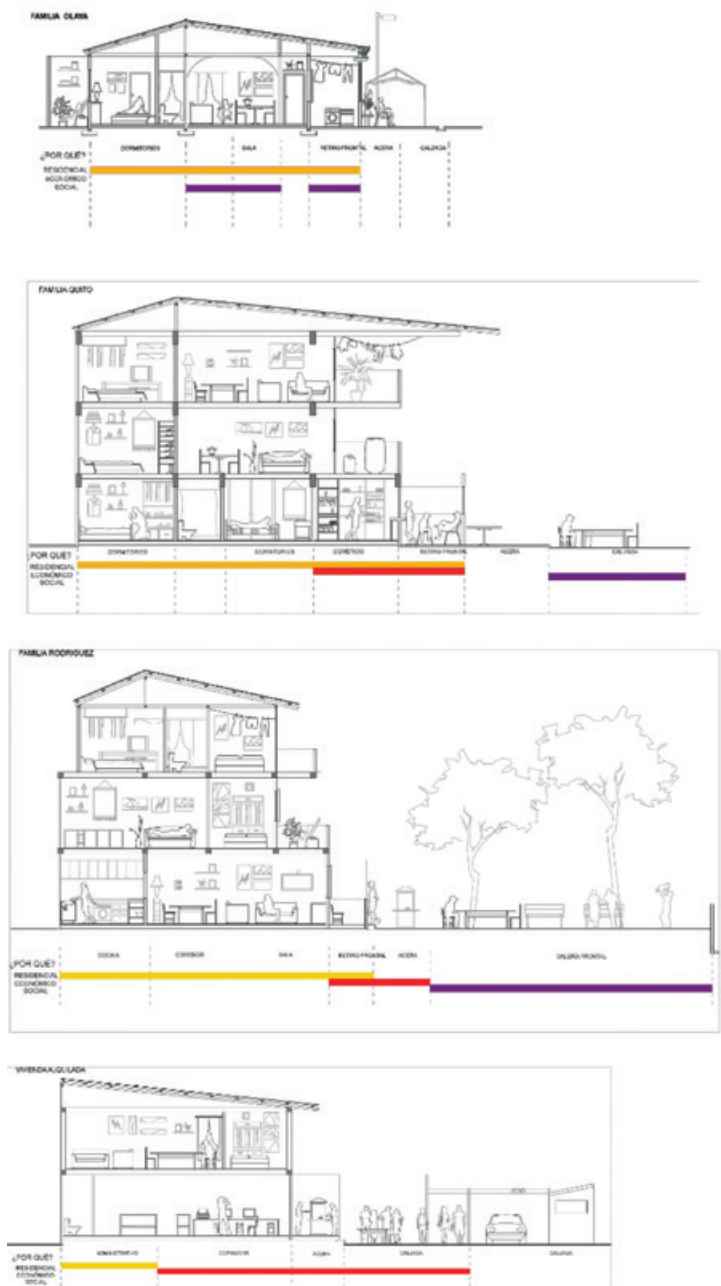
On regrouping objects and people from different dwellings, the incursions and excursions violate and blur the limit the house sets between the public and the private. The sections [Figure 6] allow identifying the moving of objects over this boundary, something which mainly happens because of three reasons: the introduction of public property objects and the collective use inside the dwellings, the temporary moving of privately owned objects onto the street, or the incorporation of municipal urban property. This free movement of objects over the boundaries, entails the opening up of social boundaries imposed by the family or by the neighborhood, leading to new groupings, associations, and scales of collectivity.

The four sections of Figure 6 allow seeing, in detail, the different household objects and furniture and their immediate context. Each graph incorporates colored bands on the lower part. The color represents a particular use of the space. The location of the band also allows seeing, in the projection of the top drawing, which spaces of the section are used for activities related to each use. For example, case N°2 shows how the yellow band, which corresponds to residential use, is extended throughout the ground floor of the house and extends onto the street. In this same case, the red band, that illustrates commercial use, runs from the porch of the dwelling to the inside. A transfer of the boundary is produced by this, in both directions.

The reading of the bands allows observing the overlapping of activities with a different use in the same spaces, reinforcing the dissolving of distinctions between inside and outside, and between the public and private. In addition, it reveals the obsolescence of a rigid architectural program, insofar as there is no connection between the activities and the spaces traditionally defined for a single particular use. This is the case of the section of case N°4, which portrays a red band of commercial activity that occupies more than half the inside space of the dwelling.

Figure 6

Comparative sections of the selected cases (incursions and excursions).
 source: Photograph by the author (2018).



PEOPLE, OBJECTS AND ACTIONS⁹

9 Yona Friedman, in her "Structures serving the unpredictable" (1999), and Constant Nieuwenhuys, in his "Nueva Babilonia" (2009), describe this space formed by people, objects and actions.

In Figure 7, the movements of the members of the four families have been mapped, during the morning, afternoon, and evening. Each movement is motivated by an action that is associated to the use of certain objects. The colors represent the main activities that take place, and the objects involved in them. The overlapping of the movements points out the meeting points of the different users, delimiting the places with greatest affluence.

The bottom right figure, in each case, points out these centers of agglomeration, where at some point of the day, a large number of people and objects come together. In case N° 1, for example, the area where the altar is placed to hold mass and the seats for those attending, is highlighted as the center of largest gathering. The same occurs in the porch area of case N°2, or the shops of case N°3.

Figure 7
Mapping of the use of the house throughout the day by the different members of the family, in 4 of the case studies analyzed. Source: Photograph by the autor (2018).



This leads us to understand the dwelling, not as a sum of functionally differentiated spaces, but as a group of objects and people that temporarily regroup. The objects and people form, in this way, groups capable of incorporating, losing, or moving elements. These actions are the same that are produced in the social structure of the family, as such, a parallel evolution of both sets is made possible.

DISCUSSION AND CONCLUSIONS

The results presented, coincidentally describe the needs that dwellings around the world have had during the months of confinement that the pandemic demanded: flexibility, adaptability, participation, immediacy, production, and so on. The goal of this research, which is partially presented here, is actually describing this informal logic of transformation, which from the precariousness the dwellings analyzed live within, allows making conclusions applicable to any other housing project.

With this in mind, the links between these results and the several theoretical positions are set out below, which approximate the territory of the systems of objects. This has allowed defining six fundamental principles, capable of being used in new cases.

PRINCIPLE 1: THE HOUSE AS A MEETING POINT

The house is not understood as a single volume that houses an inhabitable space, but rather a "center of masses" that conveys a given density; a crowding of objects that previously formed part of other groups and that have been relocated and brought together around a center of gravity that binds them together¹⁰ (Allen, 1999). In this way, the house is not defined so much by its physical (walls) or legal (plot) setting, but rather by a "meeting point" between objects and people, that replaces its boundaries¹¹. The reading of the house as a set of objects, is fundamentally based on Moles' "Theories of the Object" (1975), that sets off from the consideration that daily objects are capable of forming a system of relationships between them, as Baudrillard defends in his book, "The System of Objects" (1969). It is even possible to understand that there is a certain "social life in things" (Appadurai, 1991). In 1993, Latour gives a name to these systems of objects and people through their *quasi-objects* and *quasi-subjects*, but it is Lash (1999) who equates the system of objects to that of people, demanding a necessary "planeness" between both groups.

PRINCIPLE 2: FAMILY-HOUSE APPROXIMATIONS

The house, just like the family, is an event that is also exposed to contingencies over time (García-Huidobro, Tugás & Torres, 2008). It can be understood, therefore, as a "society of objects", with a similar nature to the social structure of the family (Chombart de Lawe, 1960). The objects in this society behave on the ground as people, approaching or moving away, complementing each other. They are moved, included in one group or in another, on so on.

Understanding the dwelling as a social system of objects, at the same time, makes the appearance of approximation mechanisms between the social system of the family and the physical-social system of the house possible, leading to a common driver of change (De Teresa, 2016b). The family and the house have, following on from this, a similar social structure, so they can mutually affect one another. They are entities in permanent change, formed by systems of elements (people and objects) that are jointly transformed and that, as a result, cannot be analyzed separately. This dual system between people and things is, for some authors, more stable the greater equality of influence there is between both subsystems¹².

10 Stan Allen (1999) talks about "field conditions" within a system of freely moving elements.

11 The understanding of house as a shelter comes from the creation of a rhetoric on fear and safety (Turner, 2017).

12 This is how Scott Lash (1999) describes "planeness" and it goes against the imbalance shown by the "predator-prey" model of Wilensky and Resnick (1999).

PRINCIPLE 3: SOCIAL TRANSFORMATION OF THE HOUSE

The objects of the house can be understood, from this perspective, as a "social system", with a similar structure to that of the family, so they can be transformed alongside each other. The house has to be capable of transforming itself following the same logic as that of the family. It is not just growth, as the "progressive" housing plans proposed, but rather progressing towards a global housing system whose nature is capable of facing the familiar complexity and adapting to diverse circumstances, among those, the economic restrictions, the changing relationships with the neighborhood and other dwellings, and those of the obligatory confinement seen today, with the COVID-19 pandemic.

Therefore, the consolidated informal house does not intend on being a pure object that is resistant to change, but rather a hybrid, that behaves as one of the uncontrollable "indocile objects" that Lash describes (1999). In that sense, the possible recycling cannot be produced through the physical change of an object, but rather through changing its position and role inside a group. The same happens with families, as people do not change, but rather their way to group and the role that they perform in a given social group does. It is these groups, of people or of objects, that are hybridized on moving and exchanging elements from some groups to others.

PRINCIPLE 4: DIRTY AND HYBRID OBJECTS

Latour (1993) states, in this context, an uncontrolled proliferation of "hybrid monsters" as the result of the purification work pursued by modernity. The author describes as "dirty objects", all those that cannot be classified because they are experiencing an ongoing transformation. This happens with groupings both of objects and people. Thus, he introduces the concept of "quasi-subjects" and "quasi-objects". These are entities formed by elements (people or things) intertwined through a system of relationships, that are permanently being updated. The people, as the collective subject, and the things, as the collective object, do not correspond to clear typologies. They are hybrid as they do not fit in any taxonomy.

The case studies analyzed exemplify this changeability in the family makeup, as family structures differ enormously from one another, in terms of members, role they have in the group (renters, distant relatives, on so one), and nuclear families into which they are structured. Both the house and the family tend to become, because of this, "dirty" objects and subjects, hybrids and unclassifiable, as Latour describes, or the difficult group as Venturi (1978) outlines.

PRINCIPLE 5: THE OBJECT AS MEDIATOR

Objects are, as has been seen, the main parties responsible for transforming dwellings. It is thanks to moving certain objects, that activities and gatherings are generated. These are the first ones to appropriate a place, both inside and outside the house. They are also in charge of changing the use of a space or hybridizing uses by mixing with each other. So the object inevitably becomes a mediator between people and their surroundings.

It is probably through these objects, that the architect can intervene in these precarious contexts¹³. The users of the dwellings analyzed buy everything there is in their house, except for one thing: the house itself. The professional architecture that we know, it not made to be sold in these cases¹⁴. The main role of the architect, as a professional in charge of projecting a dwelling, could maybe incorporate this role of "product designer", being responsible for devising objects that can be acquired by families and included among household objects. Architecture has to be able to offer an affordable product, and through this, contribute quality to dwellings. In this way, the object becomes a mediator between the architect and the user.

13 This article does not propose excluding the architect from housing production; on the contrary, to involve them in 95% of constructions that currently do without their work.

14 Approximately 95% of constructions made in Guayaquil are done following an informal system, without having the figure of the architect, on this being an expense that can be done without (De Teresa, 2016b).

PRINCIPLE 6: ARCHITECTURE BY CATALOG

However, this need for change in the role of the architect, is not exclusive to the informal dwelling. After the pandemic, the whole world will demand the same as in the analyzed informal dwellings: being able to easily change on facing any contingency, making the users themselves direct participants. The only way the architect has of intervening in these situations, and at a global level, is also through the design of objects that can be bought directly by families¹⁵. In fact, the current housing crisis demands a revision of the role of the architect, to be able to indirectly, but immediately, mediate in alterations that any house may require.

This implies incorporating object design to the formal practice of architects who are dedicated to housing, generating an "architecture by catalog", capable of responding to the immediacies of urban life. The research suggests, in this point, the appearance of a habitat formed by mass produced objects, that can be bought at a good price, and that can likewise be moved, exchanged, thrown away, on so on¹⁶. In this way, the catalog converts daily, ordinary, and everyday objects into the key to understand the world, to make a "policy of the daily" and, to transform, through them, society. This is not a classification, but rather a choice, a menu, a toolbox. This architecture by catalog has the goal of passing from the anti-hybrid culture, to accepting a proliferation of hybrids, that begins with the proliferation of the catalogs themselves. This would allow a greater diversity and, consequently, a greater ability to choose and customize, just as happens with the clothing in our wardrobe, or with the furniture in our room .

In this world of mass produced objects, each one has certain implied possibilities of transformation, which work as their own "social norms", in charge of regulating the behavior of the group . It is these objects that are the path to innovation in the housing field, on being able, by themselves, to introduce changes in any house (solar panels, composting heap, balcony and so on) or on hybridizing with other objects, passing the ability to innovate to the user. Hence, the field of action of these objects can be extended throughout all the scales, from the small objects in a drawer, to the scale of the house, or even the city, becoming the stars of the domestic and urban setting. The objects are those that are ultimately responsible for extending beyond the physical limits imposed by the house and the social limits imposed by the family, and to weave a dense social structure that is capable of becoming a driver of joint change.

15 Many associations have reacted to the pandemic offering new articles for direct sale, like masks, air purifiers, mechanisms to open doors without touching them, on so on. These objects are an example of how a given industry can immediately intervene in any home.

16 Walter Benjamin analyzes in "The work of art in the age of mechanical reproduction" (2013), the capacity of the industrialized object to become truly transcendental.

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