IMMIGRANT POPULATION IN BARCELONA: RESIDENTIAL CHARACTERISTICS AND USE OF PUBLIC SPACE

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The arrival of numerous immigrant populations in the last decade is causing deep changes in the physical and social morphology of the Spanish cities. This population locates in specific areas of our cities and has distinct settlement patterns from those of the native population. Likewise, the characteristics of their housing and the use that they make of the public space are different from those of the rest of the population.

In this paper does a characterization of the physical conditions of the dwellings where this population live and of the public space that the immigrants use and the social consequences that these challenges involve.

The territorial area of the research is the Metropolitan Region of Barcelona. It has been developed in different neighborhoods of the RMB with different urban and demographic characteristics and with a high concentration of immigrant population.

The methodology used has been a combination of quantitative and qualitative techniques. First of all, a quantitative approach on the housing and the public space of the zone of studied has been made. Afterwards, different qualitative methods to study the results in depth (participant observation, interviews, analysis of photographs) have been used.

Keywords: immigrant population, housing, public space, qualitative

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Introduction

Immigration is considered to be a major social phenomenon in the Spain of the early XXI century. The massive influx of immigrants is a fact that is producing structural and irreversible changes in our cities (Blanco, 2000).

To understand the magnitude of this phenomenon is enough to note the increase in population for the period 2001-2009. In 2009 the immigrant population represents 12.08% of the immigrant population in Spain, whereas in 2001 the immigrant population only was reaching 3.33 % of the total population. This supposes an increase of 8.75 % of the immigrant population in only 8 years. This rapid increase of the immigrant population has produced important changes in the physical and social configuration of the Spanish cities.

This paper presents the first results of the research project "Immigration, housing and city housing conditions, urban and access to housing, urban and social consequences and performance criteria for Barcelona and Madrid", funded by the Spanish Ministry of Science and Innovation with reference (CSO2008-04337).

This research takes as its starting point, the results of a previous research on seven main metropolitan areas in Spain, which was located in the city areas where immigrant populations are concentrated.

With that project was possible to determine that immigrants were located in urban areas that concentrated most deficient housing stock. This project is the continuation of such research, and it arises from the case study. This approach is consistent with the goal of the research that is to know in depth, the problems of the immigrant population in relation to their housing conditions and their use of urban space.

This article shows the results obtained in 2 of the study areas of the Metropolitan Area of Barcelona, where we have studied the living conditions of the immigrant population and the use in public space of this population.
Research Context

The scope of the research are five neighborhoods in the Metropolitan Area of Barcelona (RMB), and five districts in the Metropolitan Area of Madrid (AMM), where, according to previous research of this Centre is located a percentage of immigrant population over the average of the RMB and RMM. (Fullaondo, 2007) The areas selected have different socio-demographic and urban characteristics to check the impact of these variables on residential and urban conditions of the immigrant population.

In this article we present the results of two study zones of the Metropolitan Area of Barcelona. These contexts are the Maurina neighborhood in the city of Terrassa and the Raval district in Barcelona.

The Maurina is a neighborhood located in the town of Terrassa, within the metropolitan area of Barcelona. This neighborhood has a surface of 42 hectares and a population of about 8000 inhabitants. Construction began in the '40s with the arrival of immigration from the south of Spain. It was originally a shanty town and when the Spanish immigration was consolidated, the shacks became in self building constructions. In subsequent decades blocks of flats built in the area of the district.

Historically it has been a neighborhood with a strong neighborhood movement, which has enabled successive improvements in the neighborhood and the construction of numerous facilities despite the small number of people. However, due to the lack of home construction in the neighborhood, these improvements have not been enough.

In the last decade has seen a significant increase in the immigrant population residing in The Maurina. This stock represents about 20% of the population of district and is mainly composed of people from Morocco, followed by people from Latin America.

This renovation in the composition of the population has led to deep demographic changes of type (rejuvenation, and masculinization of the population), social (change in socioeconomic status and occupation) and urban (occupation of deficient housing, different uses in public space).

Among the highlights of the social morphology of the neighborhood, people from Non-EU countries accounting 19.92% of the people, the majority in this group the Moroccan population (12.65%) and well below the Ecuadorian population (2.29%). The arrival of immigrants has rejuvenated the population pyramid in the neighborhood, where there was a serious problem of aging. It is also noticeable that the rate has increased
masculinity, being 102.39 for the total population and 138.23 for non-EU population. Also important is that has increased the sex ratio\(^5\), being 102.39 for the total population and 138.23 for non-EU population.

The physical configuration of the neighborhood consists of an orthogonal urban fabric, with steep slopes, and a lack of public space for meetings and relationships between people. The situation of urban edge that presents most of the perimeter of the neighborhood affects the quality of many of its streets generating spaces unused for lack of activities, besides, the streets are priority vehicle with little space for pedestrians. With this lack of public spaces for socialization, emerging indeterminate spaces of encounter with little spatial quality. As for formal public spaces, there are three places in the neighborhood, two of which are in a rather deteriorated or minimal maintenance and without any spatial quality. Together, the accidents of topography, consisting of steep slopes, difficult accessibility and the movement on foot to some areas of the neighborhood.

The type of housing consists of a part of self-built homes, single family or semi-detached, ground floor and one or two floors, lots of approximately 5 meters wide, have been changing its structure over time, resulting in a flat housing above or by horizontal partitions. These homes are characterized by multiple failures of accessibility and lack of living conditions. On the other hand, there are other buildings height (usually 4 or 5 plants), built in the 60s and 70s. In these homes are repeated shortages of housing conditions and shortcomings in accessibility.

Due to housing and urban fault in the district and the quickly increasing of immigrant population in 2008 was awarded the district an urban renovation project in the so-called Barris Llei of Catalonia.

As for the study area of El Raval, this neighborhood is located within the Old Quarter of the city of Barcelona. Due to the complexity and density of the neighborhood for this study, we selected one of the areas of Raval, where most immigrants are concentrated. This area has an area of 27.64 hectares and a population of almost 18,000 inhabitants, this area makes it the most densely population of Barcelona.

The origin of Raval goes back to the time of the fall of the Roman Empire, but throughout the Middle Ages when the heart of Raval grows. However, was in the early

\(^5\) Sex ratio is the number of males per 100 females.
eighteenth century, when industries are beginning to settle in the neighborhood, when
the Raval begins to take shape as it is today.

Due to the humble origins of its population, and the deterioration and abandonment of
its space, traditionally has been associated with an image area of marginality. The
neighborhood has seen strong proletarian demands from the eighteenth century to the
early twentieth century. In more recent times, the neighborhood has enjoyed strong
social net.

This area has traditionally been a location neighborhood of immigrants, but has been in
the last decade, when this phenomenon has intensified in Spain, when the Raval has
become one of the main reception areas of Barcelona population immigrant.

The study area has a 51.01% of foreign population, of which the predominant
population is from Pakistan (14.32%), followed from Morocco (4.66%) and Ecuador
(2.54%). Also noteworthy is the presence in the neighborhood of a significant
percentage of population from the European Union (6.57%).

The location of this population in the district has produced significant demographic
changes. The sex ratio of the area is 138.05, a number that increases to 214.28 when it
comes to people outside the Community. The arrival of this population has also helped
to rejuvenate the structure of the population pyramid.

The physical configuration of the Raval is composed of a historic urban fabric,
consisting of a dense urban fabric that is articulated through many narrow streets. The
area is lack of public spaces. This lack of public spaces for gathering and socialization
causes the interstitial space appropriation of poor quality for the development of these
activities. The situation of the Raval in a central area of the city, and the fact that in the
neighborhood are located facilities and city services, cause the neighborhood is an
attractive constant flow of people, further enhancing the use of space public, which
already runs a deficit. In addition, despite having multiple city-scale facilities, the area
is not provided with adequate facilities for the population that lives in the neighborhood.

The main housing typology is mixed-use building on half blocks with share party wall
building and commercial premises on the ground floor. Commercial use of the ground
floor contributes to the vitality of the neighborhood streets. The housing stock is
deteriorated, as a very high percentage of housing (57, 64%) was built before 1900. In
its origin the construction quality of these homes was not very good quality, to this
situation there is to add the lack of remodeling and care in maintaining the buildings, which has caused living conditions do not meet standards current habitability and that 51.58% of households in the district are in a deficient situation.

In the last years the structural situation of the neighborhood has coexisted with a social and urban gentrification, although in the case of the Raval, this process has particular characteristics. The gentrification is characterized by the residential occupancy of urban centers by the upper classes, which move to live in these areas and thus moving the lower income residents who occupy them.

One of the peculiarities of the Raval is that almost simultaneously in the district have settled immigrants with low incomes and people with a middle or upper socioeconomic status. Both groups have very different economic situations and participate in the housing market in the same area, despite not reaching the same submarkets. (Sargata, 2001).

In the last two decades, the Raval has been the scene of multiple urban interventions, however, these interventions were not always prioritized the welfare and needs of the people who live in the neighborhood.

To carry out the research has developed a methodological strategy based on methodological triangulation. In outline this methodology is a bibliographic approach of the different contexts of study, a quantitative analysis on housing and urban characteristics of the study areas, and a qualitative analysis of the residential conditions and the use of public space areas studied, which has developed from interviews and observation of the characteristics of the housing and participant observation of public spaces in the areas studied.

Results about housing

Each neighborhood has different physical characteristics that determine the life that develops the people who live in them.

In La Maurina a considerable part of housing is self building and some housing is blocks with a maximum height of 5 or 6 floors.

The most common deficiencies lack of accessibility and structural problems.
Then there will be a more detailed description of building type and the most common pathologies and problems.

The most frequent type of houses of ground floor plus one or two floor, built in narrow plots of about 5 meters wide. The vast majority of these homes were self-built since the early 40s to the 60s. These deficiencies home construction, pose structural problems and service delivery. Many plots of this type of houses there are a small courtyard that connects several homes. Another feature typical for this urban fabric of the Maurina, are the narrow alleys that provide access to housing, which are almost inaccessible and a considerable lack of lighting.

Other problems facing the inhabitants of these homes are the poor accessibility, the humidity, lack of space ...

Many of these buildings have been subdivided into small houses, perhaps about 30 m2 (according to statements by interviews) in some cases in basements without habitable condition.

Another building type is typical of the plots Maurina where before there were houses built houses in height, and has become the horizontal partition, with structural weaknesses, services and housing that this entails.

The rest of the homes in La Maurina, are multifamily in height, with ground floor plus four, five or six floors. Most of these buildings the ground floor devoted to residential uses except for some buildings carrer Núria, where almost all trade in the neighborhood. Almost none of these buildings have a lift, so that accessibility problems are notable. Within this type of building, is remarkable Vitasa case. Housing blocks are five levels, with residential use on the ground floor, promotion of the 60 private and suffering “aluminosis” problems.

In the Raval the type of housing is more homogeneous. The majority typology in the Raval are multi-family buildings with share party wall of 4 or 5 floors, built in very narrow fields of about 5 or 6 feet wide. Most buildings haven mixed uses, combining residential with commercial or industrial uses on ground floor.

These buildings are based on constructive guidelines origin of very low quality, both in building materials and the distribution of the rooms inside the building. A starting this circumstance is the lack of proper maintenance of buildings and non-housing adaptation to changing standards of habitability.
The most common problem of these buildings is the lack of accessibility, the structural problems, deterioration of buildings and lack of ventilation and lighting. Some of these problems are consequences of the age of the buildings and have made insufficient remodeling. Another part of the housing problems are structural to the type of urban fabric and are difficult to solve. This is the case for lack of accessibility, as the 81.99% of the buildings do not have elevators and 90.56% of houses are not accessible. These buildings are very narrow and it is impossible to lift. This is true also of the lack of lighting and ventilation, as the Raval is composed of very narrow streets that impede air flow and the passage of light.

The search for affordable housing has been part of the immigrant population to use as residence a local on the ground floor of a commercial or industrial local. This leads to specific problems such as lack of adequate facilities or gaps in service delivery. A specific type of houses in Raval is the workshop, which formerly concentrated in one compartment of the workshop and address of the family. This type of homes has been converted at present in housing type lofts. Although many times these houses are occupied by middle-upper classes are also certain issues associated with the lack of ventilation and lighting, which as we said above are structural problems that can not be ended with a remodeling.

The process of gentrification in the neighborhood and the location of immigrants have made to develop two real estate markets, an informal form and another, totally independent.

A phenomenon that has spread in the last decade is the rental of rooms. This phenomenon was limited to students or young people, while currently the principal means of access to housing for the immigrant population, at least in the early stages of the migration process. This general type of residential occupancy cause specific problems such as overcrowding.

Although the residential properties of the two neighborhoods are very different in both have been able to confirm through field work and the statistical information available, that the immigrant population is located in poorer households and there is a clear relationship between population immigrant and substandard housing. According to the work done in these two neighborhoods has been determined that substandard housing in relation to possible scenarios may possible:
Conditions of substandard housing. It is when there are objective conditions of substandard housing as structural problems or lack of ventilation, which are more or less easy to detect through statistical data.

Substandard housing situations. There are cases where although the quality of housing is good, there are situations where the use to which the residential space that make substandard housing, such as overcrowding or the use of spaces that are not intended for housing. It is very difficult to find substandard housing situations.

A home can be objective in substandard housing conditions but these conditions can be alleviated with use. On the other hand, a home can meet all the standards of habitability and that improper use of space is a situation of substandard housing. This diversity causes are difficult to determine when there really is substandard housing.

Tenure within the immigrant community is both the rent and the property. In the current context of crisis, unemployment is common among the immigrant population and many families are facing problems in paying the mortgage, which in some cases causes many families already had a residential unit itself will have to return to rent rooms or in the worst case, the return of the family unit in the country of origin.

Results about public space

Despite having similar demographic characteristics, in the Raval and the Maurina there are different uses in public space by immigrants. Among the factors that can make this difference would be the origin of immigrants in each space, the type of project migration of the population lives in the neighborhood (if family or individual), the physical configuration of public space the neighborhood or location within the city.

In this relationship between immigrants and public space, a number of variables that must also be taken into account: gender, age, origin (Monnet, 2000).

Thanks to the observation of groups in public spaces of coexistence and the other techniques used, it is possible to see aspects of social conditions and gender roles assigned to both culture of origin and the host.

To better understand the social dynamics that are generated in these spaces, provide a brief description of the physical morphology of these places and then uses that are predominant in them. (Aramburu, 2008)

On the use of public space by the immigrant population, there have been observed three
public spaces in the Maurina and three public places in El Raval. Then there will be a short description of the social and physical characteristics of each of the spaces.

La Plaza de La Maurina is strongly conditioned by their location within the neighborhood, (near end) and its topography, situated on a slope, giving it a situation of gully with steep slopes and in the rest of the neighborhood.

It has an irregularly shaped triangle with one edge longer enclosed by an embankment with trees in which two damaged stairs that connect the square with the highest part of the neighborhood. Most of the enclosure is made of cement, plus there are small islands of grass, several benches and a playground.

The other two edges of the Plaza are in direct relation to the typical houses in the neighborhood of narrow plots, mostly one or two floors. The ground floors of these buildings are devoted mainly to housing, except for a couple of ground floor where two bars are located, so not much activity takes place.

The accessibility of the place is very bad, can only be accessed by stairs or steep slopes with. Both the maintenance and lighting could be improved.

This square is used almost exclusively by groups of young people (mostly men), both Moroccan and Spanish origin, who are dedicated to pass the time. It can be said that neither the physical nor the social setting of this space is used to stimulate, so it ends up being unused and abandoned space.

The Plaza de Vitasa is a space of four irregular sides. It is also located on a slope but in this case, is located in height from the street.

The edges forming the square do not generate dynamic to this, except one that gives a housing block (Vitasa).

The proposed uses for this building are a playground area with benches in the shade and a wooded area with sandstone paving but without any furniture. The state of the square gives a perception of neglect and the lighting is very poor. Accessibility is limited.

The predominant use is done in the Plaza de Vitasa is related to the childhood game, users of the Plaza are mostly children, who use a nearby after school or on weekends. There are children from 4 to 14 years, although not interact among them, or use the same space, are mostly Moroccans, and there are also some Latin and some Spanish.

Most children are not accompanied by their parents, although there is usually a care from elders to children.
The low-use of the plaza may also poor quality and warmth of the space, because when people have more time for child care or play of children, other areas are chosen better equipped and more pleasant for users.

The Assembly Square Plaza Catalunya is a broad and substantial potential uses. Occupies about half a block and is related to different neighborhoods of Terrassa, although it is within the perimeter of the Maurina. This, in addition to the characteristics of space, guaranteed to be a very dynamic Plaza.

It is located on a large gap that is resolved by incorporating a ramp and some steps, stairs resembling an amphitheater. The space also has beds of grass, a playground and several groups of bench. In addition, through square access to facility Civic Center where activities related to participation, youth and children. It also gives access to a big commercial. The center of the square is dominated by a large chimney, identity element that appealed to the industrial origin of the area.

The accessibility and maintenance of the ground is very good. The lighting in general is quite good, except the area that gives access to the Civic Center. Not give any dominant use of space, it is common to develop several activities simultaneously: playground, rest, informal meeting, trade or access to equipment. The key is the fact that there is a playground. The presence of this infrastructure of daily life (Sánchez de Madariaga, 2004), leads to many times to be chained tasks: acquisition, development of some activity in the Civic Center, child care, meeting ...

This variety of uses and activities that enables space stimulates the social complexity of it and that there is no dominant social group. This area is used both by young people as older, elderly and children, also is used equally by Spanish people as immigrants. We only find that there are differences in use when we apply a gender perspective, since there is a greater use by women, both Spanish and immigrant. The explanation for this increased presence is in the uses that can play in this area, (care, children's games, and food supplies) associated with reproductive tasks traditionally carried out by women. While there is a wide social diversity among users and users of the Plaza, this plurality is not accompanied by an interconnection between the different social actors, as each operates independently.

The public spaces in the Raval are Rambla del Raval, Plaça Josep Maria Folch i Torres and Plaza Sant Pau del Camp.

The Rambla is an open area with good accessibility and visibility. This space for their
dynamism and location, structure the social life of the neighborhood. There is good connectivity between the Rambla and facilities in the neighborhood. Is elongated in shape and measures 290 meters long, each side has flower beds with vegetation. For furniture, have rows of individual banks. At the end of the Rambla is a Botero statue, used as a meeting point. At certain times, privatization of space is produced by the terraces of bars and a weekly market, which restrict the space for users.

Not give any dominant use of space, it is common to develop several activities simultaneously: rest, informal meeting, trade or access to equipment, however, spends more space provides the room, because there are few benches and no space to develop further activities (playground). There is a very intensive use of this space, both local residents and outside it. The space is used by both Spanish populations by immigrant populations of all ages.

The square Josep Maria Folch i Torres has a rectangular shape and is open on two sides, on the other two edges, gives a public high school that nurtures user space at certain times, and the other edge there are buildings with shops and bars, which also generate dynamics in relation to the square. It is a space with two slopes on each of which produce different dynamics. On the down floor is paved and there are benches, a basketball area and a children's playground with swings. At the top there are more benches, a fountain, and an area to play petanque. In both areas there are shady trees. The lighting and accessibility to the plaza are good.

Use of this occurring is very intense place. There is a dominant use of a group of American teenagers; however, this group lives without conflict with other people using the space. There are both Spanish and Immigrant population, but dominated by migrants, mainly from Latin American and North African origin. It is a very masculine space, and used mainly by young people.

The last area observed is the Plaça de Sant Pau del Camp, is a square with four irregular sides closer the two are open during the day and the other two are closed. It is located above street level, which prevents it from being visible from outside. The floor is paved, and has large lawns and flower beds with an area for dogs. In the square there are no banks, or any other element that promotes another activity to be in space. On one side of the Plaza, which is on a slope, there is a chimney of a factory recall the identity element for industrial origin of the neighborhood. The fact that gap is closed, and generates feelings of insecurity, so it is a space that is underutilized. A punishment is a space used
by the local people, and have become a space which is associated with marginal use. In this space focuses people who have nowhere else to go: the homeless, undocumented immigrants, people with alcohol or drug problems.

**Conclusions**

As outlined earlier in this paper, this presents the first results drawn from broader research, so that the conclusions are provisional.

- As has been determined in the cases studied, in the case of access to housing the variable that determines access to a better or worse housing is the source linked to social class, whereas in the case of the use of public space the crucial variable is the gender over the origin of the person.
- As noted with regard to the type of housing, immigrant community living in the homes of lower market value, both purchase and rental. The spatial, constructive and accessibility determine the low quality of habitability.
- In buildings without elevator housing is starting to repeat a pattern that existed in the Barcelona bourgeoisie of the late nineteenth century, where the upper classes were installed on the lower floors and as he climbed down floor class. Currently, this situation occurs but with the immigrant population. We find that the Spanish population is concentrated in the lower floors while the immigrant population is in the upper floors.
- Within the substandard housing conditions or situations, the population who is renting is most vulnerable.
- In addition to concentrating on housing with more deficits is common among this group the cohabitation of extended family members, causing overcrowding problems.
- Women are who suffer the more precarious conditions, since on the one hand are the most used indoor and the other to be the most entering and leaving home.
- Although the residential conditions are not optimal, the home has an essential role in the socialization of immigrants, especially the Moroccan, as it is here that conducted family meetings. It can be understood therefore that the houses supplement to other social spaces such as facilities or a public space.
- According to these first results it seems that there is no relationship between poor housing and substandard housing or intensive use of public space. It has been shown that despite the situation of poor housing is not given a heightened use of public space.
by the immigrant population, and that use fairly similar to what would make Spanish person.
• There is a relationship between housing and related space to the extent that the spaces used for recreation and meeting are those close to housing.
• It was possible to determine a difference between the situation of substandard housing and substandard housing conditions, both dynamics can lead to different results. On the one hand the objective conditions of substandard housing (lack of ventilation, cracks, humidity), can be alleviated by proper use and taking some action by residents. On the other hand, substandard housing situations we refer to problems of substandard housing that are not related to the objective conditions of housing, but for a bad use of it, can cause problems of habitability.
• In the case of the use of public space is essential to understand the dichotomy between productive and reproductive work since it is this dimension that the source that marks the use of public space.
• It has established a relationship between the rate of migration (whether family or individual) and the use of public space that is given. It seems that when migration is familiar, the male presence in public space is smaller, and the predominant uses are related to reproductive tasks, whereas individual migration is more men on the street doing entertainment-related uses and sociability.
• In this limited use of public space a main factor is the quality of public space, and whether this space is adapted to the needs and experiences of people who use it.
• Most of the tasks performed in the public space for immigrant women, are related to the reproductive role has been traditionally assumed by women. This relationship between the use of public space and gender roles, is also visible among indigenous women.
• It is also quite remarkable the presence of children of immigrant origin unaccompanied on the streets and public squares. As noted above, it appears that they are given more autonomy and also trusts that care for older kids.
• Who uses a particular space and how it is, in other words, its physical and social settings are crucial when people use or not a space. For example, the physical configuration of the Plaza de la Maurina not be invited, but neither does the fact that there is a constant occupation of space by groups of young people (almost exclusively men) who are dedicated to consume cannabis.
• The proximity or connection of facilities with public spaces, determines the use made of public space, for example the use made of a particular place is set on the edge of the adjacent school.

• There are mixed use in public space, spaces that are used by immigrants and Spanish population, however, there are places where there is an interaction between different groups, while in other places there is coexistence but are not interaction.

• In the field work has come to appreciate that while adults have some problems to interact not true among children and young people have no problem with relationships. It seems that many times if not more interaction occurs between adults is by language difficulties.

• It has been concluded that many of the conflicts in the public space between immigrants and Spanish, are caused by the lack of resources such as public spaces and facilities, making that people compete for them. Such conflicts could be solved or mitigated by improved land management.

Bibliography

• Aramburu, Mikel (2008) “Usos y significados del espacio público” en revista ACE (Arquitectura, Ciudad y Entorno) nº8

• Col·lectiu Punt 6 (2008) “Recomenacions per la implementació de la perspectiva de gènere a la planificació” Barcelona, Diputación de Barcelona, ajudas a la recerca


• Monnet, Nadja (2000) “El uso del espacio público por parte de los nuevos habitantes del Casc Antic de Barcelona: continuidad e innovaciones” Scripta Nova nº 69 1 agosto 2000


• Sánchez de Madariaga, Inés (2004) “Infraestructuras para la vida cotidiana y calidad de vida” en Revista Ciudades nº 8 pag 101-133
