The Minimum Cell – Minimum Housing Standards: Minimum as Maximum

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Abstract: The present study aims to reflect on the house’s minimum living space through its functional and spacial features, throughout architectural models of the so-called ‘social housing’, where budget restraints and the need to dignify the habitat coexist. Spacial and formal restraints are therefore defined as the main concerns in an architectural research, meaning that ‘minimum’ thinking does also apply to a daily architectural practice, where there’s a need to balance the ‘desired’ house with the ‘possible house’. Therefore, the importance of the present proposal is manifested in an evaluation of Architecture as a comprehensive practice, analyzed in its contemporary context and establishing parameters that will be applied in new housing proposals. The proposed paper therefore tries to define Architecture as a widespread benefit capable to define and apply criteria so it can accomplish its intentions. The main architectural movements will be mentioned through their practical and theoretical ideals who express the principles of spacial definition and its correlation with the individual and the surrounding environment. However, in this article, it will be made a special mention to the Neo-realism movement from the post-World War II period, where the admissible minimum was intended as the maximum possible.

Keywords: Neo-realism, Modernism, Housing.

1. Concept: Minimum as Maximum

In many investigations and research papers held in the past, ‘minimum’ has been assumed as a synonymous of ‘reduction’ or ‘elementary’. In that order, we might question the relevance of associating ‘minimum’ to ‘maximum’ when their meaning is antagonistic. However, words are fragile, especially when they are intended to produce a classification or rating of something.

Classifying and rating is still a recurring practice in architecture and arts in general, where different practices are named the same way when they are similar to each other according to certain characteristics. It does turn easier the induction of knowledge and assimilation of its characteristics, but it depends on the 'features' defined in order to determine a Style or a Movement. Or, better even, a 'Type'. Categorizing a practice or a theory is equivalent to present a Typological Study, where a number of constants are listed to classify Models in order to define a Type.

Therefore, if we define 'form' or 'space' as the criteria used in a future study / classification, we will obtain different Models, even if we want to define a same meaning: sometimes we
witness a clash of opinions when, for example, it is tried to determine the very first signs of Modernism based only by a depuration of architectural shapes, even when these shapes are still ruled by neo-classical criteria.

1.1 Definition

In the present investigation, 'Minimum' is translated as ‘the minimum amount of habitable space needed to implement all functional and social movements of their occupants'. Admittedly, this may be an evasive definition, in the sense that ‘minimum volume’ suggests ‘a’ smaller volume, but never ‘the’ smallest volume. That is, once defined the functional and social needs of the inhabitants, depending on the used criteria, it can be defined that an acceptable minimum volume is simply the maximum possible, according to the available resources (which in most cases are defined by financial criteria; nevertheless those criteria can also have technical or political restrictions).

1.1.1 Consequence or Ideology

There are many contexts in which we can point out the willingness of providing the ‘maximum’ possible given the limited resources available. This is more common when the factors that will determine the development of theories and practices used to define ‘various minimums’ consist precisely in situations where immediate answers are demanded. In these cases, a search for the maximum volume, needed for the inhabitants’ dignity, health or socialization, is usually expressed by a practical program, and not by a precise ideological substrate, which primary objective is area or volume ‘per se’.

Fig. 1: Streatham Building (1848), Henry Roberts

Henry Roberts (1803-1876), considered the 'father of the English Collective Housing' (a paternity as arbitrary as those usually set to define movements or styles) reacts to the unworthy conditions in which factory workers survived after their exodus from the country to the cities. In spite of this very well known consequence of the Industrial Revolution, a series of philanthropic processes aimed at those in need began. Given the total absence of infrastructures of all kinds, Roberts drew the 'Streatham Building', in 1848 that had been preceded by a prototype four years before. Despite the small areas of the cells, these

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1 http://www.ukbookworld.com/cgi-bin/search.pl?s_i_DLR_ID=stern&s_i_keywords=poverty&pg=1 [04.2008]
consisted in the ‘acceptable minimum’ because they were also the ‘possible maximum’ (even taking into account that, as a political activist, he made possible a taxes reduction on construction materials that decreased building costs, paving the way for more affordable housing). In this context, the compromise reached between area and commodities did not translate into a choice, but as the only available option.

1.1.2 Ideology or Consequence

Always having as a background the pressing need to provide housing, the most common attitude, when defining the 'minimum' criteria, has always been the providing of standards that define a level from which the house should be endowed with the qualities of dignity, health, sociability and the ability to promote human development, rather than repress it. Of all the different 'minimum' ideologies, in every each of them there is almost always an underlying idea of a 'prototype' that aims to respond to a multitude of different situations according to a predetermined solution. The investigation process is thus somehow abstract, avoiding specific limits at various levels. The budget is one of them, not in the sense that there is no limit of costs and spendings, but because this limit is unknown (perhaps variable) and therefore worked in a hypothetical minimum value: pre-fabrication, modularity, replication, minimal areas ... Another factor missing in this particular attitude can be seen in the real dweller or inhabitant, also idealized as an abstract entity, who will have a very hard time trying to identify himself with a standard house.

This short introduction to such a complex subject illustrates that making use of an aphorism like ‘minimum as maximum’ actually corresponds to a change of the paradigm underlying the practical result.

2. Provenances

An opposite theory to the ‘minimum standards’ could only be developed beyond an environment of pressure that requires urgent planning, solutions and action. In these circumstances, the need of typifying is crucial, because many problems require simultaneous responses, as a prompt answer to immediate disasters (war, natural phenomena) or cumulative ones (as it happened in England's Industrial Revolution).

2.1 Context

That is why the basis of a less rigid system was a society that was immune to the hardships of war, uncontrolled industrial growth, or even an obvious differentiation among classes and their income, which required immediate large-scale solutions. The Northern European Countries offered a less analytical architectural approach, known as the New Nordic Empiricism, which focused its attention on local characteristics of topography, landscape and climate in order to provide a sense of belonging to architecture. This was a calm and
consecutive process, enlarged by the fact that countries such as Sweden were spared from the destruction of the Second World War.

### 2.1.1 A sense of belonging

This attitude began with a change of perception in the conception of Man, who was therefore considered an entity formed not only by his biological needs, but also shaped by specific regional characteristics, which defined his physical and mental growth. The humanity was now gifted with a strong cultural and physical background, defined by real and daily needs, and not designed by an architecture capable of changing the world. Therefore, now Man belongs to a particular place (being ‘place’ a definition far from political borders or nationalistic expressions). As such, in order for Man to recognize himself within his own surroundings, the characteristics that produce the sense of belonging must be searched in his own environment:

**Shape:** the building, being the result of a specific location, and not of an abstract situation, assumes its characteristics: the contours of the site are reflected on its sinuous shapes, the surrounding landscape acts as an extension of domesticity (more important than mere solar orientation), or simply gains movement and diversity in the features of the building in order to combat 'modern' or 'international' monotony.

![Fig. 2: Rostamrädet, 1950](image1)

![Fig. 3: Stjärnhusen, 1953 – 1955](image2)

Sven Backström (1903-1992) and Leif Reinius (1907-1995)

It was, probably, not only by chance that the paternity of the 'Y' building was given to Sven Backström (1903-1992) and Leif Reinius (1907-1995), in which the central access serves three apartments per floor. The intention was to take the maximum advantage of the stairs (elevators were absent in most cases, given the usual small scale of the buildings) without sacrificing ventilation and lighting through the façade (which happens in most of the buildings served by an inside gallery/corridor) or the privacy of the internal spaces of the house (where some internal spaces lead to outside galleries). We mustn’t forget the Nordics’ more liberal concept of privacy, even in the city (where galleries and large windows are common use). In this new context, very close to nature (which is intended to be the ‘entrance’ of the living cell), a corridor next to the windows of the house wouldn’t be logical.
Scale: always having the human figure as a reference, opposed to the ‘Modern’ Universal Man, the new neo-empirical urban schemes recover a scale inherited from the English Garden Cities. Despite the critical point of view of more conventional ‘modernists', who define this attitude as 'neo-romantic', such judgment was based on a direct comparison with purely ‘Modern’ models from the period between wars (we can mention as an example the ‘Bergpolder’ building, 1934). Nevertheless, the single house, typical of the English Garden City, was not the exclusive type of housing cell of the Neo-empiricism, being the collective housing the main type in use.

In Sweden a new Type of building where the advantages of multiple solar orientation and building height are combined, creates a unique low-rise building usually called ‘punkthuss’ or 'point-blocks'. The very often reproduced solution eventually manifested itself as a compromise, because there were only two apartments per floor (each one with three facades) that would only be profitable if the access was made only by stairs, limiting the height of the block to four floors. Beyond those, it would be required the use of an (expensive) elevator which in turn would dictate the existence of more apartments per floor, destroying the original intention of maximum sun exposure. Eventually this type would degenerate into very high towers, especially in the Anglo-Saxon countries, were the translation of 'punkthus' became 'vertical slums'...

Matter: the visual identification of the building was part of the ideology behind the neo-empiricism, in which the use of local building materials became part of the vocabulary used by the architects of this generation. It should be noted once again the fragility of the definitions of 'generation', 'movement' or 'style': the main character in the use and exploitation of traditional materials was the Nordic Alvar Aalto (1898–1976), whose

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3 Schoenauer, Norbert – ‘6,000 Years of Housing, revised and expanded edition’, W. W. Norton & Company, New York, NY 10110, 2000
categorization varies from ‘second generation modernist’\textsuperscript{4} to ‘organicism’\textsuperscript{5} (such as Frank Lloyd Wright ?...). However, in a more conventional range, the practical character of the common building materials also influenced the choice of brick, wood or even a sloped roof, because the use of local resources would lead to greater cost-efficiency, when combined with prefabricated elements. Also, the assumption that the local climate must determine the choice of materials and shapes (such as a sloped roof in a harsh climate) lead them to different possible shapes and a sort of rustic image, that contributed to the classification of neo-empiricism as being humble, but also as a petty-bourgeois fantasy.

Fig. 5: \textit{‘Forshagagatan’}, Farsta, Sweden, 1959

Nils Lonnroth (…–…)

2.1.2 Spacial Affinity

We can consider the ‘petty bourgeois’ classification as unfair, because Modernism remained present on these proposals through space and organizational solutions that were still valid. This kind of statement, based on epidermal features, can be considered superficial, because Walter Gropius (1883-1959) had always insisted in Modernism as a method and not as a style. The truth is that neo-empiricism tried to reduce the abstract idealization of the Modern Imaginary Man, mixing it with local lifestyle traditions\textsuperscript{6}. That didn’t prevent the ‘neo-rationalist cell’ to maintain its Rationalist organization and functional features. Nothing in the (many) studied models indicates the presence of the old bourgeois ways of life, guided by the ritualization of common functions, or the presence of servants, for example. One of the key criticisms about the first modern models consisted in, precisely, the maintenance of

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\textsuperscript{5} Frampton, Keneth – ‘Historia crítica de la arquitectura moderna’ - Editorial Gustavo Gili, S.A. 08029 Barcelona, 1996
ISBN 84-252-1628-1

\textsuperscript{6} Portas, Nuno - ‘Pioneiros de uma Renovação (3)’, in “História e Crítica, Ensino e Profissão”, Série 2 – Argumentos, volume 23, Porto 2005, FAUP Publicações, Faculdade de Arquitectura da Universidade do Porto
ISBN: 972 9483 72 8
certain practices, associated with the more privileged classes, that would have no place in modern life, even less in needy families, like access to servants. Even if those buildings, Modern in shape and appearance, suggested rational and functionalist features.

For example, André Lurçat (1894-1970), a modern architect par excellence, presented at the 1932 Vienna’s Werkbund Exhibition a series of townhouses with a modern language and organization scheme: the contained areas included closets where beds could be hidden, allowing the use of the same space as a day or night area. Nevertheless, he still 'offered' a room for a housemaid, arguing that this space could have a different use. And by doing so he was criticized by Roger Sherwood, who considered that ‘ancient habits’ were unacceptable in a Modern construction.

![Row Houses](Image)

The above floor plans correspond to the scheme used during the day, where beds are closed in cabinets. The lower floor plans show how spaces adapt to nighttime use, with the beds outside the cabinets. The pink areas correspond to the maid’s bedroom.

Fig. 6: ‘Row Houses’, Vienna, Austria, 1931-1932

Andre Lurçat (1894-1970)

The Nordic post-World War II examples didn’t try to offer rooms for servants, or bedrooms big enough to make sleeping a daily ritual (its use was purely functional, with the necessary area to be so). Likewise, it reflected a new family organization, formerly rural, now factory workers, where women are also providers and don’t make use of kitchens for poultry or farming products. Without being a 'Modern Laboratory', they are contained spaces, attached to dining areas devoid of a pompous or bourgeois character. Without being a rural hut, it is not a reduced Parisian Hotel.

**Site specificity:** So, again referring Nuno Portas, it is a crossing between Modern proposals and direct assessments of the user’s real needs. Therefore, by maintaining the characteristics described above, these are validated as relevant and related to actual uses, not

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just supposed ones, proving that Modernism was able to meet certain expectations of a mutating society. However, there’s no place for a use of an uncritically modern archetype: beyond the ‘real’ requirements of the user, it’s introduced the notion of the existence of a ‘real’ user. The introduction of new disciplines in the architectural debate, such as psychology or sociology, lead to an idealization of an architecture less capable to change society (through the anticipation of a New Individual), but able to better respond to the existing community. And as such, the ‘discovery’ of actual practical and mental needs introduced a ‘regional component’ in the Modern housing prototype.

Given the context in which we belong, in Southern Europe, it was always felt that people further north had a less rigid notion of the concept of ‘private’, including in this category less activities that we would in Portugal or Italy. There’s a lack of a clear differentiation between a house’s public and private spaces, not in a way that functions are shared in the same area, but in the sense of a lack of a limit to separate activities (physical or otherwise). This can be sensed not only by the occupants but also by those unrelated to the household. Thus, it is common practice to locate rooms near the entrance of the cell. Although not exposing the inside activities, it does facilitate the perception of those by strangers in the lobby, and exposes the trips to the bathroom, for example. This proves the preference for the ‘public’ space of the house, and the relations established between family, household and guests. One of the raisons may be the harsher climate, which prevents outside neighbor relations (unlike the south of Europe). Inside it is used a more direct (and open) relation of common spaces with the kitchen (still small, in area), and it is given to living and dining spaces the maximal area possible: while in 1958 Portugal used an area of 12 to 13m² for the house’s living
spaces, Sweden was already making use of a minimum of 20m². The worn-out argument that northern countries have a greater economic power which allows them, even in subsidized housing, to have more resources, doesn’t entirely explain this fact. Nor the argument of private spared area spent in living rooms. In reality what happens is a careful management of resources, which in this case is shown by savings made in the equipment of the house.

Although referred by Nuno Portas, one can point the lack of built-in furniture in many models, as opposed to those in André Lurçat’s housing scheme, that was functional only at the expense of dynamic (and expensive) furniture. We can mention the ‘Unité d’Habitation de Marseille’ (1945), for example, who didn’t have a refrigerator (only an ice box where blocks of ice were dropped through the gallery) in order to achieve a comfortable floor area of 92m² in a three-bedroom apartment.

As noted above in '1.1.2: Ideology or consequence ', this was perhaps the first reasoning about the change of paradigm in architectural theory: facing concrete situations leading to the idealization of different possible ‘maximums’ (as opposed to an effort based only in the lowest possible value, is response to questions that didn’t existed). The real change is established in the definition of the status of ‘real’: a real situation, a real Man with real needs, whose response admits experiments and different answers, since they were no longer handling with (abstract) constants.

3. Sequels: the Italian neo-realism

Italy follows with interest the experiences developed in Northern Europe, which, as we have seen, progressed in very favorable circumstances, given the destruction felt in countries more affected by war. Although Italy was one of the main actors in the conflict, it still could meet a number of factors that made them capable of using the Nordic neo-empiricism as a reference. In fact, only 5% of its housing dwellings were destroyed in the conflict. So, the emergency situation that leads to the standardization, repetition and fast building did not occur.

3.1 Scope

The (relative) lack of urgency, however, was the only resemblance that might have existed. Italy is one of the conflict’s defeated countries, and all its political structures had fallen as a result. With them, all its manifestations of power were equally destroyed, especially in architecture, where the fascist regime had chosen Neo-classicism for its brand image, as an

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8 'multiple activities: meetings around the dining table, for meals or not; reception, rest, chat, recreation, certain hobbies', Portas, Nuno – ‘A Habitação Social: proposta para a metodologia da sua arquitectura’, Edições FAUP, 1st edition, 2004

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9 Idem
allusion to past (and successful) civilizations, including Italy’s own Roman ancestors. Ancient Rome easily alluded to world and cultural domination that Italian Fascists wanted to reach through their participation in World War II. Modernism was therefore previously empressed by the regime (consequently having a reduced visibility), and by the end of the war all the Italian masters of Modern Architecture ‘were dead’\(^{10}\), creating a formal and ideological vacuum that forces the country to look around for new references for post-war architecture.

The existence of any ‘Italian Modernism Masters’ could be another parallel discussion, since, in general, the Italians always steered clear from extremists who wanted to delete any reference of the past. The ‘Group 7’, appeared in 1926, defended a correlation between form and function, however with a classical substrate: Giuseppe Terragni (1904-1943) created on the 1932’s ‘Casa del Fascio’, in Como, a set of geometric relations (quadrangular plan, with a building height equal to half the measure of the square) that alluded to Classical Rationalism. It was also based on the urban Italian palace’s Type, organized around a central courtyard. Despite the formal purity, some monumental and tectonic expressions remained, who led to the existence of an Italian Rationalism, instead of an Italian Modernism.

Modernism arrived after the establishment of the Fascist Regime, so there was no relation between its imagery (adopted by Rationalism) and the previous democratic regime. Thus, before the adoption of an unambiguous historicist language, repression over Rationalism was tenuous, even allowing the construction of some ‘Casas del Fascio’ (‘Houses of Fascism’) according to their principles. Terragni is the most visible example, but Luigi Carlo Daneri (1900-1972) also created a similar programmatic building in Sturla, in 1936, near Genoa. Adding to the authorities Rationalism’s rejection, intellectuals were also disappointed by the fascist political agenda, in practice very different from the popular unity proposed in theory.

The search for new references in architecture achieved two different perspectives: in a first phase an approach is made around the ‘Real or Common Man’, simultaneously forgotten by Modernism and Fascism. Despite the unaffected housing, the populations’ ethical, moral and pride disintegration remains unsolved, which lead to a rapprochement to the underprivileged residents and its forms of expression. After identifying the different problems and goals, an intervention method is searched in order to respond to the aroused questions. Implemented or in progress examples are investigated, like the Nordic New-empiricism, that stands out for its humbleness but mainly for its search for a national identity. Italy didn’t have political stability and social equality or even the means available in Northern Europe, but had a blank sheet at all levels that served the same purpose.

3.1.1 ‘Existent’ reality ‘versus’ intended reality

The fascist aesthetics, like any totalitarian regime, had relied on an idyllic vision of society based in rather optimistic ethical and moral assumptions. The classical architecture references were, as seen above, synonymous to an imperial past, also intended to be an imperial future. With the regime’s fall a process takes place that demystifies that (intended) reality, and its maximum expression takes shape in Italian Cinema (from which became common the term ‘Neo-realism’).
Far from the romanticized epic movies from the fascist regime, it is now tried to make cinema the symbol of a new aesthetics linked to a new left-wing political ideology. Neo-realistic cinema desires to get closer to what they believe to be the people’s reality, filming in slums, fisherman’s villages and turbulent city centers. The idea is to show a working class, deceived in their rights and always frustrated in their attempts to achieve a better life, almost in a documentary way were bare facts are shown. This was intended to be an exposure of the problems urged to be solved, and not an ideological withdrawal from an attempt to improve people’s conditions.

Neo-realism, manifested also through writing and painting, acts as a social reminder that intends to create an optimistic reaction from the population. Architecture responds to the challenge, creating housing solutions for the less privileged, inspired in their aesthetics and spatial solutions.

3.2 Process

The intervention method adopted by the Italians manifested itself, among other programs, in the INA-Casa, who was financed through a withheld contribution from the worker’s payments. The obtained financial resources were therefore managed by a central institute, who would promote the construction of social housing all over the country. Architects affiliated with the Neo-realism were the main designers, but also those indirectly associated with the movement (whose unique affiliation was the participation on the process): Luigi Carlo Daneri wanted to keep some distance from the neo-realistic figures, but he recurred to the topography and landscape of the sites when designing is projects, like in the experiments made by neo-empiricism and applied in Italy. In order to solve the city (and rural) housing problem, there were two different approaches that stood out, not only by their practical results, but also by the contrast made with Modern method and imagery.
3.2.1 Definition of Reality

The intended proximity to Real People, already visible in cinema, lead to a designing process held close to those, listening to their ambitions and aspirations, but also paying attention to the lifestyle held inside the house. This was the first ‘cut’ to be made with Modernism, already announced by northern experiments, where the main goal of the project is the Contemporary Man, with real and verifiable practical needs, and not a persona to be developed in a near future. In other words, one works with facts and not based in assumptions.

**Inquiry:** in order to determine ‘that’ Real Man, and his lifestyle, part of the research was made according to the data obtained through surveys conducted among the population. This process allowed identifying a number of factors ignored by the idealized conception of Modern Life, but also helped, as had happened in Northern Europe, to validate part of its inheritance. Despite the attention devoted to elements like topography, climate or building materials, related to a specific site, the models present in the current investigation still managed to bring up some similar details, in their spatial organization, regardless of the shape of the building or its aesthetic choice. Nuno Portas refers that, in the surveys conducted under the INA-Casa program, 25% of the respondents wanted a dining area in the kitchen, and this one served by a balcony. And the fact is that the kitchen’s balcony is almost present in all of the analyzed Italian models. It can be interpreted like a response to a local requirement, but also the result of the designer’s attention to the applicants’ needs. It’s also noticed more reluctance in offering the dining area in the kitchen (that would make the living room the only ‘living’ space). More interesting is that we are able to see in the proposals with a kitchen/dining area the architect’s clear affiliation to the Neo-realism, and in those who don’t precisely the opposite: Carlo Perogalli (1921 - …) was clearly opposed to this ‘movement’ because he considered it politicized, and in Comasina Nord (sponsored by the GPA in Milan, in 1957), the kitchen is reduced to a small counter contained in 3,2m² (without a balcony…). Also, the dining space is contained in the living room (refused by 90% of the respondents). Federico Gorio (… - …), an assumed neo-realistic, offers a kitchen.

![Fig. 11](image-url)
with nearly 11m², in Tiburtino Est, where it can be easily placed a dining table or performed a series of house chores (the balcony as a ‘working’ place, for laundry, also contributes to its practical characteristics). There are also some ‘compromise’ solutions where the dining area, is kept safe from prying eyes but close to the kitchen, even if included in the living room.

Such kind of spatial organization, as Nuno Portas refers 11, reproduces a traditional way of life, where the kitchen was used as a more private living area, opposed to the living room, a mere reception and representation area before the appearance of television. So, there was no place in the Italian neo-realistic house for the laboratory type kitchens made famous by Margarete (Grete) Schuttle-Lihotzky’s Frankfurt Kitchen, exponent of a Modern Lifestyle.

A similar solution can be found in the southern countries of Europe, where even in Portugal the kitchen is commonly felt as a living space for the domestic household. We can mention, for example, the João Paulo Pena Lopes’ 2001 ‘Instituto Nacional de Habitação’ (National Housing Institute) award winning project, in Meda, where in a still recent housing building the architect introduces this ‘ancestral’ way of living: ‘a large and friendly kitchen, where the dining table could be in the middle, and where family reunion where possible with the comfort of a fireplace’12. Therefore the kitchen centralizes the household’s main activities, instead of the living room where the fireplace is absent.

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11 Idem
One of the main presences in the Neo-realist projects is a clear distinction between night and day areas, where bedrooms and the bathroom have a very well defined limit, as seen in the floor plans. Entrance is always made through day areas, or daily household spaces, and bedrooms are located at the end of the internal course, often protected by a private hall. And this, regardless of the architect’s ‘artistic orientation’.

How should we interpret this? It’s true that functional separation was one of the main concerns of Modernist authors, because it corresponded to the attribution of a specific function to a specific space of the house. On the other side, the Italian bedrooms have very comfortable areas, with numbers that even today are rare in current buildings: rooms could have up to 20m² (even if this value is proportional to the total area of the neo-realist house, also very spacious). These spaces are clearly destined to more than just sleeping, since they can accommodate more than one bed, but also desks, tables or sofas, where a series of activities can be performed. In other circumstances (countries, cultures) those could be carried out in the household’s common spaces: study, work, various interpersonal relations. The appreciation of privacy remains a southern characteristic, very obvious if we compare it to Nordic housing cells, where an increase of the living room areas does not necessarily mean bigger bedrooms. However, we can’t forget that the main Modernist theories were elaborated in Germany, a country that we easily define as more northern than southern.

Another small signs allow us to characterize the post-world war Italian housing plans, which became common even after this period: the ‘social’ balcony in the living room, or a small den which help to define this house as a very practical one. All of this in an area than even today is uncommon in some unsubsidized buildings, like 103m³ for a two-bedroom house (Tiburtino Est, 1952), but that was made possible in a country recovering from a war that was lost also by the Italians.

Giancarlo de Carlo (1919-2005): it must be made a special mention to this architect, who worked in close communion with the future dwellers. This was a Neo-realism common characteristic, but De Carlo took it further, making participatory this kind of relation: ‘(…) participation is a political process, but also the construction of a truthful aesthetics (…) the rediscovery of peoples’ real taste (…)’⁴. He admitted to be a complex and tiring process,

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13 Idem
14 Giancarlo De Carlo, interviewed by Piza, João in: ‘A experiência participativa de Giancarlo De Carlo’
demanding ‘youth’. That didn’t stop him to put it into practice in the Matteotti workers’ neighborhood (1969-1974), in Terni, when he was already 50 years old.

3.2.2 Building reality

The search for a ‘truthful aesthetics’ was simultaneously a goal and a consequence of the neo-realistic methodology. If the ‘Real Man’ approach leads to an investigation concerning its practical needs and aspirations, it also considers their aesthetic sensibilities, since architecture was intended to be a reflection of those to whom it was addressed. But, before being a goal, it was a consequence: the truth that was sought in the nature of the project was initially understood as a constructive expression of the building, build according to local constructive methods. That didn’t mean (yet) a nostalgic process where vernacular materials and language were intended like a return to an idyllic past lifestyle. It was a practical decision that made the project feasible since they were using less expensive local materials and resources, as they were abundant and close to the construction site. Also, the use of local labor force, very experienced in the use of common materials and techniques, didn’t imply training or recurring to workers from across Italy, specialized, for example, in the use of new prefabricated or modular materials. Federico Gorio (…), self defined as a ‘neo-empiricist’, became renowned for the care dedicated to the design of constructive details, with the purpose of making the construction process feasible.

http://www.arquitextos.com.br/entrevista/decarlo/decarlo.asp
[08.2009]

15 Idem

16 Federico Gorio’s commentary in: Cagliostro, Rosa Maria; Libro, Antonino; Domenichini, Carla – “Federico Gorio, Esperienze, Ricerche, Progetti”
http://www.delucaeditori.com/scheda_volume.php?id=17
[07.2008]
Compendiums: but, if it was defended the use of local technique, it could be also defended that a local building, built with local resources by a local labor force would also require a… local architect. For that reason those techniques and resources were made available to architects who wanted to learn from them. According to this logic, knowledge about popular Italian construction methods was collected in books, becoming reference guides as useful as those who collected measurements, standards, etc (like Ernst Neufert, for example). Mário Ridolfi (1904-1984) was responsible for one of the best known compendiums, ‘Manuale dell’Architetto’ (1945-1946), an official commission from the responsible authorities, who gave it the political support necessary to its divulgation.

The analysis of this logic allow us to verify that this was a subversion of Modernist thinking, that consisted precisely in the maximization of the standardization in minimum housing, so that these building resources would be less and less expensive. Like in a Ford T model, that became cheaper as years went by. If we believe in Modernism as a method and not a style, as Gropius defended it, there was no reason why popular aesthetics should not be used. Nevertheless, for that dogma to become true, there were two necessary things: a national industrial infra-structure that supported the construction of modular and prefabricated elements… and its intensive use, in order to make profit from all the investment made in its investigation, planning and execution. Italy wasn’t one of the more active countries during the Industrial Revolution; Modernism had been interrupted by the fascists, and its imagery was wrongly associated with the totalitarian regime. So, instead of choosing a medium-to-long term process (necessary to implement the necessary infrastructures), it was chosen the immediate construction of the much needed workers’ housing, with cost reduction as consequent benefit.
Matter vs. form vs. formalism: the use of common materials and their handling in a conventional (and more accessible) way, lead to a plastic expression very different from the image obtained through Modernist methods. Textures, colors, even unusual shapes would be used in consequence, rather than by a clear will to make popular references. However, from the late 40’s onwards, formal investigation is intensified, in order to make ‘erudite’ architecture (made by school trained technicians, that is) closer to popular taste. Therefore, the interest devoted to the construction method was replaced by a search for the aesthetics resulting from that same process.\textsuperscript{17} This period was defined by Leonardo Benevolo as post-neo-realist, but not in a negative way. He even praises the obtained result, as new buildings were very well integrated in historic contexts, although, in general, Italian urban thinking did not considered the city in a general fashion, but bit by bit (or building by building).

Others would criticize this process, like Bruno Reichlin, who said that Federico Gorio acquired some signs of a ‘lesser roman baroque’ and ‘other vernacular temptations’\textsuperscript{18} in the Tiburtino Est district (1952), absent in previous projects, like in Viale Etiopia, Rome (1948). A clear revival was assumed within the ‘neo-liberty’ movement (a term used the first time by Paolo Portoghesi in 1958), a posterior architectural theory that would not last in time.

In this context, Reyner Banham (1922-1988) states the definitive withdrawal of Italian architects from Modernism, especially when he considers that Modern architecture had always been ‘insipid’ in Italy: promoted only by private projects where the architect could work in total freedom. When commissioned by the regime the result was shallow, restrained and reduced to its mere image, like Terragni’s ‘Casa Del Fascio’ (according to Banham, who considered Terragni’s work Modernist, unlike the author, who saw himself like a Historicist Rationalist, apart from the Modern Movement). He recognizes merit in an architecture that recovers traditional domestic lifestyles (admitting a necessary revision of Modernism), but considers superfluous explicit references to a bourgeois architecture that no longer made sense in those days, much less to bridge the gaps that Modernism didn’t fulfill.

4. Conclusion

Polemics aside, the Italian experience manages to obtain tangible results through the joint effort of listening to people’s wishes and researching traditional building methods. Nuno Portas defends that, for the first time, there was achieved a concept that was not exclusively focused on the notion of a minimum housing, but also on the notion of a ‘popular’ housing: the single cost criteria is therefore replaced by the social aspects of the house. The inquiries made within the population lead to conclude that the envisioned Modern lifestyle, clinical and functional, was not valid in every corner of the world, because locally people’s functional specifications still determines the organization of the house. The ‘traditional

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domestic values’ that Banham used to refer (kitchen/dining room as common areas, bedrooms as private spaces and living room as public) can be analyzed according to a more scientific (and cynical) perspective: the living room is actually a space for visitors, closed to daily uses, corresponding to the rural or working family’s bourgeois lifestyle aspirations: the utilitarian character of the vernacular and popular houses and the scarcity of resources didn’t allow the existence of representation areas. We can therefore suggest that the more simple way of live as it was foresaw by the Modernists (perhaps associated with a less ‘southern’ lifestyle) was an unfounded aspiration, but so was the bourgeois refinement desired by the populations.

Another requirement revealed by the conducted surveys (and, in fact, by any tenant) was the need for more space or area. Here is manifested the social criteria Nuno Portas mentioned, substituting the single economical criteria, while maintaining the same budget. In fact, what happened was that the budget was applied differently, in order to promote area augmentation, rather than technical experimentations or avant-garde aesthetics. The use of local resources was one of the solutions founded; another was the ‘striping’ of almost all interior finishing and equipments, in a rather radical way. We can observe that in the referred case-studies there are few examples with built-in cupboards (substituted probably by the storage rooms, mere spaces closed by a door with no special finishes) or with a complete, ready to use, kitchen (unlike the Frankfurt-kitchen). However, the lack of finishing cannot be assume as a lack of building quality, but a solution as seen in the Nemausus building (Nimes, 1985-1988) by Jean Nouvel (1945 - ...), where apartments was delivered to their tenants without coating on the walls, which was reflected, obviously, in the final cost. More than in this more recent example, in the 1950’s Italy the use of self-construction to complete the living cell would be a realistic possibility.

21 Idem
In the right photo it’s pictured the kitchen as it was after the conclusion of the building, where only the plumbing are installed. All the finishes where the owner’s responsibility.

Fig. 20: ‘Nemausus’ building, Nîmes, France, 1987-1994

Jean Nouvel (1945-…)

And this is why, according to these criteria, it was possible to build houses with areas that even today seem impossible in social housing, like 20m$^2$ bedrooms, 30m$^2$ living rooms or total areas of 120m$^2$ for a two-bedroom apartment, a result only achieved through the concept of ‘a minimum as a maximum’. But to what extent can we say that this was due to the evolution of a previous concept and not to a total breakage with Modernism? If we understand this ‘movement’ as a method rather than a ‘shape’, it was not with Nordic-empiricism that a complete collapse with functional and spacial principles of the Modern Movement was achieved: the traditional colors, textures and shapes were introduced in building procedures that were still industrialized. And in spatial terms we can still observe a ‘faded’ functionalism where each room has a specific use: a kitchen to cook, a bedroom to sleep, a living room for the remaining activities: areas are still defined through the area they needed and not by the amount of space they could have. Italy pays attention to this phenomenon, and, although influenced by it, creates something different, according to its different prior political and social history. The exclusive use of ‘common’ building techniques (rather than ‘traditional’ techniques), and the recovery of the traditional domestic habits, in clear contradiction with Functionalist assumptions (where the separation between day and night areas is more a traditional domesticity feature than a Modern intent), are a few examples. And all of this with a more extensive formal vocabulary and a better integration in the surrounding environment, affiliated with the Nordic-empiricism, but whose similarities end there. It’s through a spatial analysis that we can argue the Italians’ Modernism abandonment, prior to Federico Gorio’s ‘vernacular temptations’. Although we cannot define the superiority of a ‘method’ over the other, it is possible to justify the legitimacy of the doubt about the existence of one single valid method.
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