«WHAT IF YOU ARE RIGHT AND THEY ARE WRONG?» GIFU KITAGATA APARTMENT BUILDING AS A COLLECTIVE EXCEPTION
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Abstract
This article tries to define a set of strategies about the generation of collective space in housing buildings by analysing some project devices, using as a reference three concepts -density, time and perception- that define, among others, the contemporary public space and are used by Kazuyo Sejima in the apartment block in Gifu to shape her ideal of living in community.

These three concepts are crucial for a correct operation of urban public space, and on another scale, for residential collective space. This fact can thus facilitate social interactions between residents and shaping the idea of community life. The use of these ideas into the building through different architectural strategies, on the one hand, define a collective idea that shows the trend of contemporary society in recent years towards a growing individualism, but on the other hand, does not help to facilitate social relations between residents. In certain way, the concept of community inherited from the past is redefined.

What if you are right and they are wrong?
This disturbing question appears in a frame of the TV series Fargo (Figure 1). The image consists of a group of yellow fishes swimming in one direction, except a red one located in the centre of the composition which swims in the opposite direction. The continued vision of this image paralyzes the protagonist and makes him reconsider whether he does what the others expect of him or what he really wants. Apart from this, it is known that the mathematical discipline −in its eagerness to look for patterns or structures− also finds exceptions, properties that only almost always occur. For these singular cases the discipline uses terms as “zero-measure sets, for almost every case or with the exception of a finite number of cases”. In short, it studies exceptions to explain the rest of supposedly normal cases. (Sáenz, 2015 min. 0,35; 3,35)

Figure 1. Frame of the TV series Fargo. Encounter between the protagonist and the poster «What if you are right and they are wrong?» FX Networks, 2014
This is precisely what the apartment building in Gifu proposes (Figure 2), which, in the last two decades, has become a paradigm within the collective housing framework, because it understands the configuration of the residential block as the aggregation of multiple housing units, atomizing the parts of the house following a standard module and linking them by an in-between space (inner gallery) – engawa – (Figure 3). Its uniqueness derives not only from the cultural influence of the understanding of space, but from the materializations generated by the constraints of local regulations. (Albert; Tokomo, 2001 p. 15; also in: Nieto, 2013 p. 57)

Figure 2. Gifu Kitagata apartment building. Naoya Fujii, 2008

The starting point is to consider the collective space of the residential building block – entrance hall, stairs, corridors, common terraces, etc.– as space of dialog that mediates between the most public sphere of the street and the private atmosphere of the houses, and whose correct social functioning enhances the spirit of the collective which it shelters, for example, as a neighbourhood square would do for its citizens, a housing block patio for the residents or a living room for a family unit.

Several authors associated to the study of public space in the city, such as Jane Jacobs (Jacobs, 2011 p. 182-183) and Jordi Borja (Borja, 2003 p. 93-100), agree that the essential factor for a public space to work is diversity, manifested in all its facets.

From all the parameters, which define public space, there are three that are key for a collective space to work. This, in the words of the Danish architect Jan Gehl (Gehl, 2009 p. 97), is nothing more than concentrating events and people –density–, during an enough time spectrum of space use –time– and in a space of quality –perception–, and thus, enhancing the idea of community.

For Rem Koolhass concentration is defined from the idea of culture of congestion; through the quality of diversity, it is achieved in space “a machine to generate and intensify some desirable modalities of human relations” by stacking multiple activities. (Koolhass, 2004 p. 152)

In its journey through these common spaces, architectural experience reveals aspects which seems to be ordinary at first sight but which together define the spatial quality of the collective scenarios. According to the artist Olafur Eliasson, space does not exist in time, but it belongs to time. With their actions, users recreate the structure that defines the essence of space, which participates actively, not being just a mere background for human interaction. The relationship is reciprocal: the interaction co-produces the space and, in turn, space co-produces the interaction. (Eliasson, 2009 p. 8-9)

Within a private context, as in the residential building happens, the design of shared spaces can be conceived as an interior, if –as Aldo van Eyck points out– “the architect’s task is not the creation of the interior […] Its task is the creation of the interior, even if it is external […] He brought in what was outside, close to what was far, making the universe an interior”. (Strauben & Ligtelijn, 2008 p. 571)
The observation of these spatial devices in the Japanese building, based on the mentioned concepts –density as the congestion of the activities, perception as the interior of the atmosphere and time as a qualified spatial journey– suppose a theoretical starting point with which give support to the idea of contemporary collective Space, since its application generates a set of singularities that characterize this space, as a counterpoint to the widespread western housing proposals.

Aspects derived from density concept. The concentration of the ordinary

The way in which circulations are developed and their layout –from the proximity to the building, to the more domestic areas– form different itineraries that encourage the people concentration or dispersion. (Figure 4)

There are two ways of approaching to the building, by foot or by car. The building shares plot with three other buildings located on the perimeter, thus, a large central space is created that exceeds 40-60 m wide, a fact that encourage dispersion of people. However, the approach by car to this housing block is made from the east and west flanks and, as a prelude, there is a parking area with gardened borders in the north and south sides, very close to the ground floor of the block; in this path, casual encounters of residents who enter or leave the building could take place.

The access circulations are distributed in six outside stairs –in order not to subtract surface from the apartments– that cross diagonally all the levels of the building, following the development of the block. Each staircase has a stop at all levels of the building, distributing users in both directions of the gallery. Thus, the houses evenly are distributed in six diagonal and nine horizontal circulations corresponding to the levels of the building. Apart from this, only two lifts –located inside the block– are available to distribute pedestrian flows throughout the building. The space where they are located –groundfloor level– consists of a forest of concrete pillars that allows bicycles to park and whose territory is delimited by pavement of different nature. While the pedestrian accesses to the building are oriented towards the free space of the patio, the houses are not; this reduces the chances of obtaining a positive reinforcement –through views that incite to the activity or the taking of information from the neighbourhood context–.
In collective space, the favourable aspects derived from diversity are not only achieved by an efficient circulation arrangement that generates crossings of pedestrian flows, but by different types and numbers of people (Figure 5). In this case, the diversity of people is given using housing types that are formed from a single structural module (to axis) of 2.80 m wide by 2.765 m high (Albert; Tokomo, 2001 p.70-71) that hosts the main housing uses. The different combination of these modules produces types that adapt to the different ways of living. The 96 proposed types of housing (singles, couple, couple + 1, couple + 2, couple + 3) allow accommodating different family groups, being more suitable for young couples due to some internal steep routes. Moreover, homogeneity in the type of user involves very similar routines of use and a less activity in the collective space. This reduces spatial vigilance in the public space (Oscar Newman, 1996 p. 63-64) and the possibilities of positive reinforcement.

There are three ways to enter the apartments –through the patio module opened to the access gallery, the «tatami space» (Albert; Tokomo, 2001 p.15, also in: Nieto, 2013 p.57) and the kitchen module–, fact that increases the possibilities of hosting different ways of life.

The distance that separates these housing accesses is another important factor when creating meeting places for neighbours. In this case the distance between doors is very heterogeneous since the modules undergo many changes of position, even being placed in two different levels. Due to the linear development of the housing modules, two doors of two similar type of house would be separated by 11.5 m, which means a great distance to be saved by two neighbours who would like to greet each other. The availability of several entrances to the house -to adapt to different ways of life- and the distance between them, encourage the dispersion and the loss of contact between neighbours.
Figure 5. Collective spaces and residential mass. The low diversity implies a short time spectrum of space use.

In addition to the layout of the circulations and the variety of people that housing types can provide, another element that contributes to fostering the concentration of social encounters and interactions is the range of opportunities offered by common spaces, in which to carry out activities and put the senses into operation. (Figure 5)

Once inside the building and immersed in the elevated galleries, it is difficult to find suitable places for human meeting. Laterally –by the in-row layout of the housing modules– and not in front of the apartments, a preambular space is developed where people can stay or do some activity; it is the semi-private space of the house whose role is entrance terrace. Focusing on the gallery, it does not have enough width to wait; that kind of spaces can be found in the junction of the landing of the stairs with the gallery. In addition, the absence of places to sit along the collective sphere reduces the chances of staying and getting information from the context. These situations take place in the areas located in the large communal garden of the plot, designed by Martha Schwartz, and on the terraces to go into the houses.

The best opportunities to look at and extract information from the outside occur as the user walks through the longitudinal galleries and the metal stairs attached to the building, as if they were balconies. From these two places is perceived the whole scale of the neighbourhood space to which the user belongs. In the galleries, the vision is filtered by metal grid panels placed throughout the corridor length, leaving holes every three facade modules to have direct vision of the outside. In these large corridors, distances greater than 25 m are handled, which makes it difficult to distinguish faces (Gehl, 2009 p.177). Also, being able to have a conversation while the children play, enriches the collective atmosphere, for this reason the longer stays take place in the large patio of the plot, where there are occasioned short meetings that encourage the dialogues, and are protected from the noise of the city by the buildings. These are the right places to enjoy the children’s games, while inside the building these neighbourhood situations are almost non-existent.
Figure 6. Cross section. Possibilities of use that enable to get information of the context and the production of human encounters.

Aspects derived from time concept. The non-hierarchised pedestrian route
In their interaction with collective itineraries, residents recreate the inherent structures of the space they travel through and reveal qualitative aspects for and against the encounter possibilities generation. A more detailed approach on dimensions shows the potential of the horizontal communication elements as tools for managing pedestrian flows in relation to the travelled distance and the spent time.

In the cross section (Figure 6), the access gallery height is higher than wider (2.42 m x 1.31 m). Considering that the doors of the apartments are opened to that space, the width is further reduced. A person who uses the gallery walks 30 cm separated from each side of the wall, this results in a useful width of 0.70 m, which is considered under a suitable and recognizable social distance (Hall, 2003 p.149); these are very intimate distances for collective space. The fact that the ceiling height is larger than its width suggests that people seem more distant, which would compensate partly this dimensional shortage.

As mentioned -except the access terraces to the flats that are semi-private- there are no collective spaces dispersed along the housing block that allow the people to take a pause or to rest. The ground floor of the building is completely opened, defining a fluid collective space, like the space of *pilotis* in the access level proposed in Le Corbusier’s Marseilles Unité d’Habitation.

Though dwellings are hardly opened to the corridor -since their openings are very small- the lack of lighting is not a problem in these longitudinal circulation elements due to their semi-opened characteristic. In addition, the semi-private terrace module allows inhabitants to extract information from the south side of the plot. This and the angle bent of the block reduce the large length of travel in housing levels, because, when a length of 15 m is exceeded, there is a risk that the space is perceived monotonous and lack of a lively atmosphere (Alexander, 1980 p.562).

Based on an unfavourable case, a person who lives at the end of the gallery would need about 46 sec. to reach the lifts. This fact is both positive and negative. Positive, because the longer residents stay in the gallery, the more chances they could have to meet another neighbour; negative, because as has been indicated, the scarcity of spatial diversity increases monotony.

About the already mentioned pedestrian flows, the width of the corridor is 1.31 m wide. A pedestrian flow about 40-50 persons /minute (Gehl, 2009 p.103) corresponds to a circulation space below 2-3 m wide; distances within the building are not quite short. The opened ground floor is the closest thing to a space for the collective meeting, although the sequence of concrete pillars block this space partly.

A numerical approach based on typical calculations of disciplines close to transport and pedestrian infrastructure (TRB, 2000), allows us to observe the behaviour of the gallery as an isolated element of pedestrian circulation. This calculation (Table 1) starts with some standard starting assumptions:
- average pedestrian speed: 1.38 m / sec.
- space occupancy of the gallery by 50% of residents living in a level: 69.
- separation of the pedestrian on each side of the pedestrian gallery: 30 cm per side.

| V | 1.38 m/sec.  
|---| 82.8 m/min. |

| D | 69 x 0.5/p 240 m² = 0.14  
|---| 0.5: Coefficient of simultaneity |

| Q | 11.6 (peat/min.)/m  
|---|  

| W1 | Total width  
|---| 1.31 m |

| W2 | Sim of lateral obstacles (distance)  
|---| 0.60 m |

| W0 | Effective width [m]  
|---| 0.70 m |

| Pedestrian space  
|---| 129 m²/pedest. |

| [Q] | 11.6 (pedest./min.)/m  
|---|  

| Level of service  
|---|  

| a | A-DDEF (-)  
|---|  

Table 1. Quantitative approach to the pedestrian route.

After the calculations, the gallery of the building located in Gifu corresponds to a “service level C”. According to this: “[…] space is enough for normal walking speeds and for overtaking other pedestrians in the main direction. The movement in the opposite direction or the realization of cross-breeds, can cause small conflicts, which will make speeds or flows a bit smaller”. (Jerez & Torres, 2012 p.40-54)

Despite being a numerical approximation, these data complement the initial considerations on the characteristics of the pedestrian route and how its side effects influence the space functionality.

Figure 7. Spatial quality of the access gallery and anthropometric implications for pedestrians. Cross section of the gallery (left) and floor view (right).

Aspects derived from perception concept. The atomized atmosphere

Collective spaces –and more specifically those of circulation– behave as a thick border that facilitates users the psychological leap from urban to domestic context (Figure 7). Focusing attention on the sensorial aspects of common space allows us to discover if it have been designed with sufficient level of detail and quality as “[…] if it were an interior space”. (Hertzberger, 2009 p.216)

One of the most socially effective elements in collective spaces is the provision of a transitional area between the common space of the gallery and the private area of the house. In Sejima’s building of the degree of openness of the houses towards the corridor is almost inexistente, and although this favours privacy, it repels the user and
encourages an anonymous atmosphere. Only integrating the terraces into the gallery space, the possibility of improving the collective atmosphere with lighting and views from the south side improves.

Having the feeling of living in a safe context is another factor that favours the creation of an appropriate social atmosphere. Within the safe dimension of space, it can be pointed out that, for pedestrians, the proximity of the parking area to the building and its development at the same level of the street offers more security to inhabitants; but not when the houses are oriented to the opposite side of the central patio and its width impedes from visual control and, therefore, people confidence. The other aspect of safety concerns to the protection from the weather conditions. Due to their semi-exterior layout, common spaces—which as the ground floor and the access gallery—can suffer from weather conditions (wind, lateral rain, etc.), but at the same time allow inhabitants to stay outside partly protected. However, being a tall building the wind produces cross air currents in those areas where the terraces are located, although on the other hand, this permeability avoids the frequent problem of Modern blocks of redirecting the wind down to the public level of the street.

Collective spaces do not have many features which make the atmosphere appealing. Standardized and functional construction details are used for the proposed spaces. The used materials and their colours tend to build a «cool atmosphere», supported using greys and white tones. If on the one hand, the in-height development of the housing levels and the distance from the patio space can be interpreted as a transition towards privacy, on the other hand they contribute to weaken the rooting to the place, since this involves a decrease of the visual and acoustic incentives that provides information of the context. According to Alison and Peter Smithson, from the third floor the relationship with what happens in public space weakens (Frampton, 2000 p.276). The Modern city model—consisting of high residential blocks which, along with the road traffic, relegate the human and binding role of public space to the background—is recovered.

Although in this project, there is no information about user complaints that reduce the “belonging feeling to the site”—according to Jan Gehl (Gehl, 2009 p.37) all the factors acting together contribute to a feeling of physical-psychological well-being favouring a pleasant place to be—, and, as has been pointed out at the outset, the cultural factor may soften the consideration of these spatial situations as something negative. The best places to enjoy the surroundings are in the terraces of the houses and, on another scale, in the landscape actions of Schwartz.

Figure 8. Encounter between gallery and terrace: atmosphere and materials.1 Facade cladding, steel plate / 2 Pavement, smoothed concrete over concrete slab / 3 Expanded steel mesh on metal profiles / 4 Acrylic paint

Final discussion. The social dispersion in the «isotropic mesh»

Sejima’s building—understood as part of a set of four buildings that define the site plot—definitely takes the idea of collectivity to another level, since it generates communal domestic space from the combination of different housing types, that are based on the combination of the same structural module. The analysis of the spaces that constitute this common sphere—through the notions of density, time and perception—shows virtues and weaknesses that
support or diminish the capacity of a space to develop an adequate residential environment for social interaction. In relation to this unique building, Antonio Miranda point some weaknesses out:

“Synergy between housing type and program of uses too aware of the phenomenal, sensory and perceptive aspects. Mechanical structure based on immovable partitions or concrete screen pillars that «fossilize» the house forever. Although it brings ideas to the social housing architecture out, in this case, we observe the pettiness go too far alongside traditionalism. Bedrooms without direct ventilation like Japanese ancestral tradition. Lack of energy control by the homogenization of the enclosures: indifference and anonymity. Corral gallery in its worse version. Lifts attached to houses. Mutual ignorance between building and city”. (Miranda, 2013 p.284)

This «non-hierarchied warp of routes» (galleries and stairs) confers order and rhythm to a housing puzzle with systemic and non-context character, that runs homogeneously along the building without any other aim than its accessible function. The dimension of this collective space is divided. On the one hand, to form the stairs to the garden and, on the other hand, towards the inside space, understanding the access terrace of the house as an extension of this space. Its «atomization» is such, that if the access galleries connect different flat units in the common spaces, this fact has «resonance» inside the dwelling because the «inner gallery» connects the different housing modules successively, i.e., it represents the result of a «homothetic inclusion» of the access gallery (geometric relation of similarity) within the private margins. (Figure 8)

![Figure 9. «Homothetic relationship» and contrast of atmospheres. Inner in-between corridor (left) and access gallery (right).](image)

The location of the access gallery is developed along the block with obvious «external will». The outside condition of this pedestrian route refers to a greater concern to integrate common motivations –through the perception of external information or visual control for safety– from the communal free space to the building. In the collective space of the building, this is achieved by the extension of the horizontal plane of the floor, while in the private, it is achieved through the inclusion of the inner in-between gallery, that behaves like an outside space in the domestic interior space. The inclusion of the lifts in the built mass and the outside condition of the stairs, avoiding consuming living space, gives more importance to the pedestrian routes, but their length and the dispersion they encourage generate a monotonous space and devoid of action.

In the opposite pole, attending to its multiple configurations of apartments, the Japanese block includes a high diversity of housing thanks to its «atomized and generic character», although the family profile to which they are oriented is very similar. Due to the linear configuration of the apartments, the main house accesses are very distant, even there are specific cases which have accesses at different levels. That, and the fact of not having other uses than the domestic one, generates a homogeneous use of space. Thus, the collective dimension tends to the strictly functional condition, emphasizing the individual unit.

Out of all the existent spaces, the entrance terrace of the house stands as the most interesting space. Despite being accessible from the access gallery, it is occupied by the residents of the house; but because of its lateral disposition -in case of any activity in it- it would not be visible from the access gallery; this fact would reduce the possibilities to get...
positive social reinforcements. The best way to enhance the wealth of the common space in a space as constrained as the access gallery would have been to orient the dwelling towards the former, as Ralph Erskine did in the regeneration of Byker Wall (Newcastle upon Tyne, 1968-1981). According to Aldo van Eyck: “If society has no form, how architects can build its mould?” (Van Eyck, 2008 p.54). Many of the housing constructions that are currently being built, merely repeat already exhausted architectural ideas that do not regard with the current social reality.

Based on the above considerations, this amalgam of non-hierarchized paths and the atomization of the house -in modules linked by an in-between space- could represent, on the one hand, the fragmentation of the philosophical discourse announced by Jean-François Lyotard at the end of the decade of the ´70s and, on the other hand, the growing tendency towards individualism in contemporary society.

In opposition to the many European proposals inheriting classic typological models, the apartments in Gifu redefine the idea of «living together» in the same housing frame, which, although is not the most appropriate way to build the concept of community, does renew it proposing an exception.

With her indisputable contributions to architecture field, international recognition, and her modern architectural vision –abstract and without historical influences–, Kazuyo Sejima values the changing present time. Although it shows very well the fragmented social reality (Bauman 2007) paradoxically proposes streets in the sky and collectivism. An analysis of the architectural strategies used leads to a disturbing question, born of the realization that her architecture avoids contact between people and, hence, the feeling of collectivity. Will not we be facing a new structure of non-collectivism?
REFERENCES


