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COMMON PLACES – ANALYSIS OF SPATIAL STRUCTURES
CONDUCTIVE TO THEIR FUNCTIONING

MIEJSCA WSPÓLNE – ANALIZA STRUKTURY PRZESTRZENNEJ
SPRZYJAJĄCEJ ICH FUNKCJONOWANIU

Abstract

The safety and comfort of the housing environment concerns both its functional, spatial and social structure. Current tendencies in the design of housing areas typically do not take the latter factor into account. Based on an analysis of the spatial structure of European housing areas, an attempt was made to determine a number of the principles of shaping space that beneficially affect the formation of informal social relationships. The research method was based on a case study of three housing areas and their spatial structure, in reference to the principles concerning the shaping of social spaces inside housing areas as described in co-housing schemes proposed by (Durrett and McCamant).

Keywords: spatial structure, public space, common places

Streszczenie

Bezpieczeństwo i komfort środowiska mieszkaniowego dotyczy zarówno jego struktury funkcjonalnej, przestrzennej, jak i społecznej. Obecnie tendencje w projektowaniu obszarów mieszkaniowych zazwyczaj nie uwzględniają ostatniego czynnika. Na podstawie analizy struktury przestrzennej europejskich obszarów mieszkaniowych podjęto próbę odnalezienia kilku zasad kształtowania przestrzeni, które w sposób korzystny wpływają na zawiązywanie nieformalnych relacji społecznych. Metoda badawcza obejmowana studium przypadku trzech obszarów mieszkaniowych oraz ich struktury przestrzennej, w odniesieniu do opisywanych przez twórców koncepcji co-cousingu (Durretta oraz McCamant) zasad dotyczących kształtowania przestrzeni społecznych wewnątrz obszarów zamieszkania.

Słowa kluczowe: struktura przestrzenna, przestrzeń publiczna, miejsca wspólne

1. INTRODUCTION

At present, technological progress appears to be, among other things, the cause of the weakening and even the disappearance of neighbourly ties. Global transformations that have taken place over the course of the past decade affect social relationships. Uneven spatial development and the dynamic transformation of the urban and social structure cause an increase in reported feelings of being at risk and of unpredictability. These problems primarily affect city residents, while maintaining a sense of community appears to be a very difficult task. The home and the housing environment along with it are becoming an increasingly significant factor in forming one's identity under these circumstances, becoming a sphere that is free from socio-economic uncertainty [3, p. 90]. The words of the sociologist S. Ossowski, who mentioned the matter of "...a social bond that is of particular interest to the urbanist – neighbourly ties. They are about social connectivity formed on the basis of spatial connectivity", remain topical [9, p. 364]. "...The shape of a housing estate itself can fulfil a significant social function; the shape of a housing estate can suggest to us a feeling of connectedness, it can suggest the 'shape' of a social group" [9, p. 348].

The fact that neighbourly relationships carry with them numerous benefits, such as a feeling of security or identification with one's place of residence, giving aid in crisis situations, the lack of conflict associated with everyday functioning or the variety of habits, remains significant [11, p. 157].

The increase in the pace of life as well as the pressure concerning quicker functioning while working longer and more intensely leads to an increase in the difficulty or even the lack of the possibility of tending to personal or family needs. Hence the necessity to consider spaces that make it possible to both form social ties and to relax or participate in recreation while having contact with greenery even during the design stage.

The element of contact with nature is a very important factor when these issues are considered. It has found confirmation in studies by F. Ming Kuo and W. Sullivan [8, p. 826], who – when observing Chicago's housing areas – observed that the presence of greenery in the spaces between residential buildings affects their use. These studies suggest that the formation of neighbourly social ties (called NST hereon in the text) significantly depends on informal social contact that can be made in a neighbourhood. Common spaces in downtown areas are often a "barren no-man's land", while the presence of trees and grass aids in the use of these commonly accessible spaces and facilitates informal social contact between neighbours.

Attractive, well-used neighbourhood spaces and common spaces in city centres can provide significant benefits to both residents and other users. Eco-friendlier green public and semi-public spaces encourage people to go outside, increasing the possibility of the forming of ties in the form of social gatherings and support the development of NST. As a result, the significant amount of work towards the development and spread of ecology can be very helpful in uniting entire social groups in their areas of residence. To people who reside in poor inner city districts and who face a series of difficult life circumstances, greener neighbourhood common spaces can make their place of residence a friendlier place [8].

The housing areas discussed in the article: Ecolonia in Alphen aan den Rijn, Tinggarden in Herfloge and Bo01 in Malmö, are examples of architecture that includes the creation of a common space that is conducive to the formation of NST and is characterised by sustainable construction solutions, as well as a high dose of greenery within the place of residence. The selection criteria for the abovementioned cases encompass “living” social spaces, which, despite differences in size and the time in which they were completed, function in a manner that satisfies the needs of residents and users.

2. THE SPATIAL STRUCTURE OF COMMON SPACES

2.1. Tinggarden, Herfloge in Denmark

We can distinguish numerous forms of initiating informal contact and forming neighbourhood communities. One of these forms is creating a common spatial structure that can facilitate interactions between residents. Tinggarden is an example of a co-housing complex, which is discussed here not because of the ideology behind co-housing, but because of a certain model of spatial structure that has formed thanks to this concept.

‘Community housing’ is a term that was coined by American architects – Charles Durrett and Kathryn McCamant [2]. It denotes a housing complex whose construction is completely dependent on the initiative of its future residents. With aid from specialists, they design their housing complexes, in which a considerable portion of space is taken up by common places. “Common space itself makes more intense community life possible by organising meetings, creating various types of projects and building a secure space free from vehicular traffic, encouraging spontaneous interaction and building a sense of community” [12, p. 13]. The sense of community is upheld by organising resident meetings and discussing current problems or events, said meetings typically taking place in the Common House, providing a sense of having an actual impact on the shape and organisation of social life in one’s place of residence.

The authors, based on the example of the housing area discussed in the article, wanted to take an in-depth look at the spatial structure itself, based on schemes that repeat themselves in numerous housing complexes (including those that do not fit with the idea of co-housing).

From the point of view of the formation of NST, it is important to discuss the notion of the *soft edge*, which is the point of contact between the building and the city/public space in housing areas and their impact on the life of residents. This space is absolutely essential, as it becomes the zone of exchange between the private and public sphere – “here activities are transferred from the domain of the apartment onto the terrace or front yard – they come into contact with public space” [4, p. 82].

In housing areas where a common space was designed intentionally, the role of the soft edge is fulfilled by patios and verandas. They belong to the homes, but are nevertheless located on the border between the private and public sphere [7, p. 20], “coming into contact” with the latter, which is why they can be called the semi-public, or semi-common sphere.

The layout of buildings themselves can encourage spontaneous participation of residents in the social life of the group. The subject of the proper placement of buildings within the interior of a housing complex so that it will facilitate the formation of NST, while their schemes were featured in Durrett's and McCamant's book [2]. Based on these examples, the following layouts can be distinguished:

- a) Pedestrian street (Fig. 1.1)

It is a small walking street or streets inside the housing complex, usually with a prohibition on vehicular traffic, and which features houses on both sides.
- b) Courtyard (Fig. 1.2)

This is a space that features a centrally-placed square, surrounded by houses, forming a courtyard.
- c) Combination of street and courtyard (Fig. 1.3)

This is a combination of the scheme with the street/streets and the courtyard, where, as in the case of the first scheme, houses are located along main streets that come together at a centrally-placed courtyard/square.

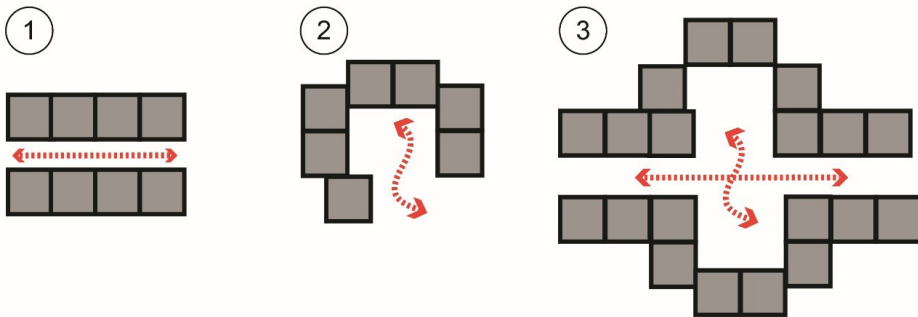


Fig. 1. 1 – pedestrian street, 2 – courtyard, 3 – combination of a street and courtyard
(work based on Durrett and McCamant, author: M. Bednarz)

In the case of Tinggarden, we can observe a mixed layout, where from a pedestrian path in the form of a main street we can reach squares surrounded by houses. Six groups composed of 12–15 houses were placed in the area. A Common House (Fig. 3) was placed at the centre of each group, forming a place meant to integrate residents in co-housing complexes, and is also meant for use by residents of neighbouring areas. When discussing Tinggarden, it should be noted that it is the first co-housing complex subsidised by the Danish government. Thanks to government aid, the dwellings could be either bought or rented, which enabled adaptation to the financial capabilities of residents. It is one of the model examples of a co-housing complex, where vehicular traffic was “banished” outside, although there is a possibility of getting in the vicinity of one’s apartment if there is a need to do so. Parking spaces are located all over the complex-; however, they were planned in areas that do not break up the continuity of internal pedestrian paths.

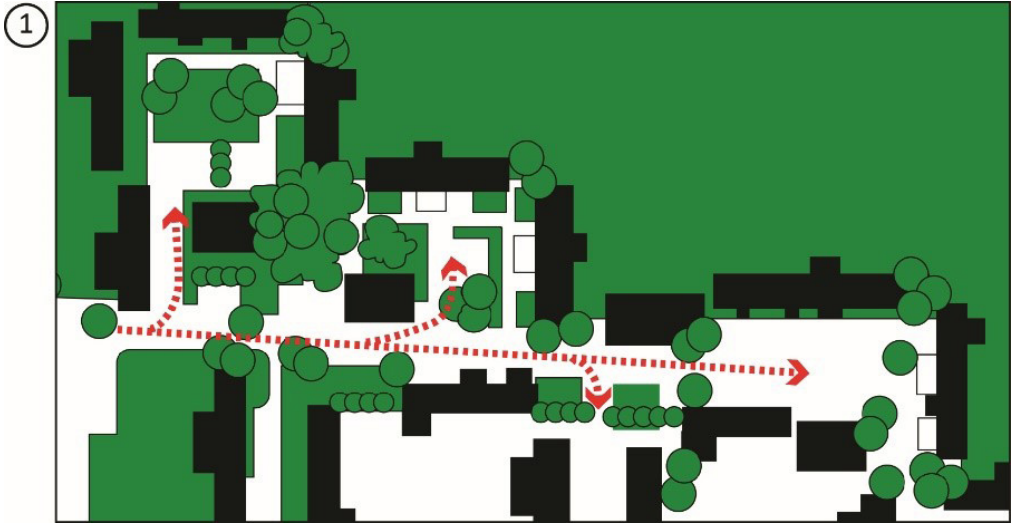


Fig. 2. Spatial structure – combination of street and courtyard, Tinggarden – Herfloge (by M. Bednarz)



Fig. 3. Tinggarden, Herfloge; Common House area (by M. Bednarz)

2.2. Ecolonia, Alphen aan den Rijn in the Netherlands.

Lucien Kroll is a Belgian architect who favoured the idea of promoting design along with residents. He was one of the pioneers of the social participation movement. The most well-known and controversial of Kroll's projects is the student dormitory of the Louvain University [5]. Prior to drawing the building's floor plans and cross-sections, the architect conducted discussions and workshops with future users – students. The building was designed by the students themselves while he was the animator of their actions. In his projects, Kroll referred to the model of open architecture¹ that adapted itself to society. He strongly emphasised that the architect's role is to be the “tool” in the creation of architecture by its users themselves.

Ecolonia was built in 1991 in Alphen aan den Rijn, a Dutch town located between larger urban centres like Amsterdam, the Hague, Rotterdam and Utrecht, and is an area called the “green heart of the Netherlands”. The project was supported by the Dutch Housing Ministry, the Ministry of the Economy and the Ministry of Spatial Planning. It featured over a hundred semi-collective housing units. Their construction took place as a part of city development plans to expand housing units.



Fig. 4. Ecolonia, Alphen ann den Rijn; Bridges above mini channels in front of the houses
(by M. Bednarz)

¹ “open architecture” – designing in a manner so as to fluidly connect what is outside the building with what is inside, while maintaining contact with nature and greenery. F.K. Wright was the pioneer of this type of design, and who developed his ideas while drawing inspiration from Japanese art, architecture and construction (author's note).

Kroll, in cooperation with nine other architects, obtained an effect of architectural diversity, distinct for urban tissue that forms over a longer period of time. The architects designed the first buildings and later subjected them to evaluation by future users. The compact style of the semi-collective development features smaller housing units: either terraced or semi-detached houses. They initiated a change in the manner of thinking about housing areas as a social structure. The scheme was repeated in designs of other housing complexes in the Netherlands [6].

The small scale of the buildings is beneficial for residents. Every house has a semi-private space in the form of a front yard, which is a belt of space near the entrance zone, developed as to make it possible to form contact between neighbours. This space is the previously mentioned *soft edge*, a comfortable space for rest, placed on the public side of the building and in direct connection with it. In the case discussed, this zone takes on the form of, among other things, bridges above mini channels (Fig. 4), referring to the location of the area and its naturally occurring waterways. Benches and garden chairs with tables appear here, initiating the formation of social ties, while simultaneously facing the public sphere of the street. There is a lot of greenery – primarily private greenery – in front of the houses, which is maintained by residents.

The private zone, of course, includes the interiors of apartments and the gardens located at the backs of houses, which remain hidden from the area's users who are not owners. One interesting solution is the arrangement of the private sphere in the houses that are located in the immediate vicinity of water. From the side facing the water there are gardens that are “drowned” in greenery, while the residents of the houses have access to the pond from the level of their private space. Greenery is a natural soft barrier here – providing separation from the neighbourly space located on the opposite side – in the form of a square with a fountain and seating. Zoning in terms of accessibility is legible. The complex appears to be very open to users who are not residents.

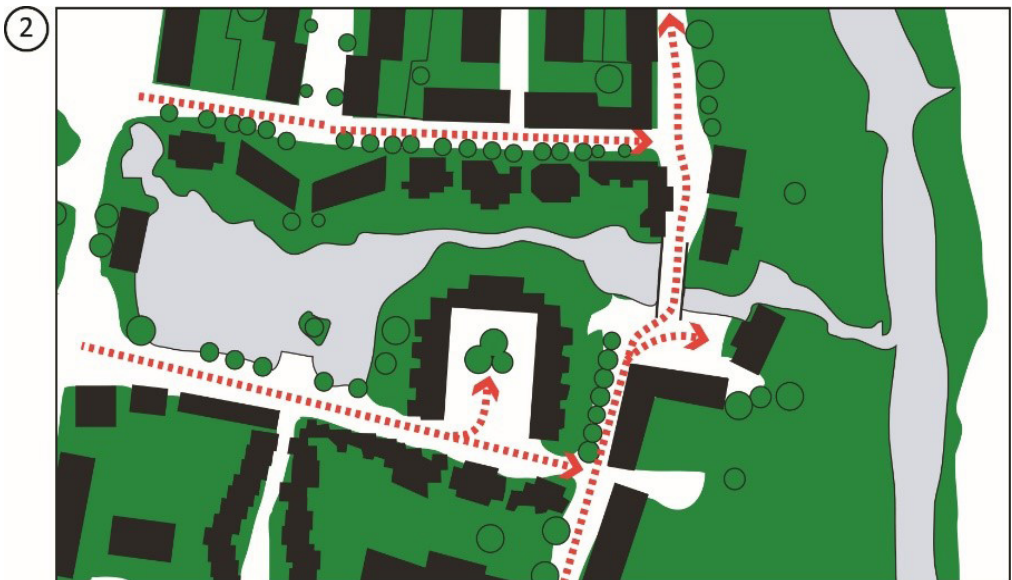


Fig. 5. Spatial structure – combination of street and courtyard, Ecolonia – Alphen ann den Rijn (by M. Bednarz).

The spatial structure (Fig. 5) of the area reflects the assumptions of co-housing complexes. The urban planning solutions used here favour pedestrians and green areas, while simultaneously providing space for vehicular traffic. This traffic is, however, subjected to self-regulation, as users have the option of using parking spaces located outside of the complex, while residents – those near their homes. We can see a mixed layout here, which (as previously mentioned), is a combination of the street and courtyard scheme, where houses are located along main paths that connect at a centrally-placed square, which in this case is located near a lake.

2.3. Bo01 Malmö in Sweden

The Bo01 project is a high-density urban structure that was built on the basis of innovative procedures of sustainable development. The complex definition of sustainable urban planning necessitated the formulation of a new model of cooperation with the city, developers, planners and designers. As a result, a project with high aesthetic qualities in terms of both architecture and urban layout was developed, featuring attractive public spaces and neighbourhood spaces facilitating the formation of local social ties. The city employed the well-known architect and urban planner Klas Tham to execute the project, who not only developed a design of an area that is sustainable in terms of energy, but also took measures to take into consideration the aspect of the social environment and the high aesthetic quality of the entire project.

The architect's holistic approach facilitated dialogue between city officials from different departments, developers, as well as future residents during a series of "Creative dialogue" meetings. This made it possible to formulate a set of criteria that the planned district was to meet, and which were written down in the "Quality Program". The decisions concerning programmatic elements were changed several times, but the main success of the project was mutual cooperation and the opportunity to gain interdisciplinary experience over the course of the entire process.

Public spaces in the area are composed of several squares that have a downtown-like character (Scania Plaza, Scania Portal or Citizens' Square), comfortable sequences of pedestrian paths and a large amount of generally accessible greenery (a promenade, Dania Park, Scania Park). Neighbourhood spaces primarily featured numerous courtyards and the Anchor Park area [1]. Open areas were designed by several different landscape architects, which resulted in their variety.



Fig. 6, 7. BO01, Malmo; Various forms of soft edges (by M. Bednarz)

One of the main assumptions of Bo01, apart from energy-efficiency, was the creation of aesthetic spaces while taking into account the needs of residents concerning the forming of social bonds. Sustainable development in terms of energy or resource and water use, according to Tham, could not negatively affect the quality of life of residents themselves. This is why he promoted an approach to planning the neighbourhood structure so that it would be highly diverse in terms of architecture and the landscape. He wanted residents to identify themselves with their place of residence and the manner of the functioning and design of the district.

The spatial structure (Fig. 8) favours pedestrians in the entire area, featuring a legible gradation of space into public, neighbourhood and private space, including soft edges (which in this case takes on various different forms, Fig. 6,7), while using the area's energy efficiency by using a surface runoff management system with reservoirs becoming interesting natural features of urban interiors.

One of the key elements here is the balance between fixed and changing elements in a sustainable housing environment. Fixed elements include: the spatial structure, the relationships with the city and the continuity of the system of public spaces (along with parks, streets and squares), while maintaining a hierarchy of space – from public to neighbourhood and private spaces (including *edge spaces* – semi-public or semi-private spaces) [10, pp. 92–93]. The spatial structure remains unchanged, but is balanced by the changing structure, which is the capacity for transforming ground floors and various forms of changing detail that can follow changes in social structure, which is aging, and its constantly shifting needs.

The principle of freeing up public spaces from vehicular traffic, prioritising pedestrians, has remained in effect in the construction of this housing area. In Bo01 we can also observe the mixed scheme of the layout of buildings. Of course, the scale of the architecture is much greater

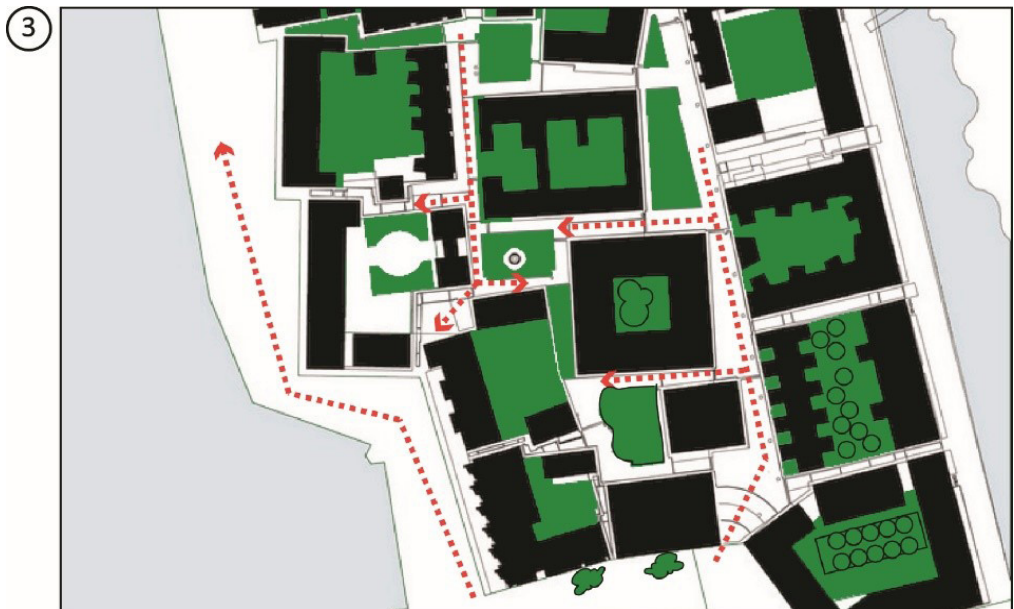


Fig. 8. Spatial structure – combination of street and courtyard, BO01 – Malmö (by M. Bednarz)

than in the case of previously discussed examples, but the same spatial structure of streets and courtyards, as well as pedestrian paths that intersect in public spaces – in this case parks or the promenade – remains in line with assumptions that can be seen in co-housing complexes.

3. Conclusion

The possibility of random meetings taking place has an impact on the development of the culture of resident groups. The ease of going from one's private home, through a semi-private terrace or veranda placed near one's house to a public zone of paths and small squares running between houses is a deciding factor in strengthening the bonds between neighbours and deepening their mutual relations [12, p. 15]. Borders that are delineated in an improper manner or an excessively large space between individual points can limit opportunities for residents to spontaneously participate in the life of the public space of the entire housing area or the one in the common areas of an individual block.

Elements that positively affect the shaping of common spaces include, the spatial structure, which is the fundamental programmatic function of creating the layouts of co-housing areas. Distinguishing courtyards within the space of the housing area, prioritising pedestrian traffic or the use of varied changing elements, results in a greater chance for residents to identify with their place of residence. Handing over the space inside a complex to the people and limiting (or prohibiting) vehicular traffic provides not only the possibility of forming and tightening neighbourly ties, but also ensures the safety of children.

Another essential factor in the creation of common spaces in housing areas is the lack of fences and "hard edges". The gradation of space is performed "softly", however, with respect for that which is private. The soft edge zone makes it possible to regulate contact by residents themselves, simultaneously resulting in their participation in the shaping of neighbourhood areas.

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