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TYPOLOGICAL GAMES IN MULTI-FAMILY HOUSING

GRY TYPOLOGICZNE W ZABUDOWIE WIELORODZINNEJ

A b s t r a c t

Some typologies of contemporary residential housing are characterised by unclear or inconsistently applied classification rules, whereas typology, like a game, requires compliance with some rules. The fact of non-compliance with the rules may turn the typology into a meaningless game and deprive it of its seriousness.

Keywords: housing typology, multi-family housing

S t r e s z c z e n i e

Niektóre typologie współczesnej zabudowy mieszkaniowej cechują niejasne lub niekonsekwentnie stosowane zasady podziału. Tymczasem typologia, podobnie jak gra, wymaga przestrzegania zasad. Nieprzestrzeganie zasad odbiera typologii powagę i może ją przekształcić w zabawę.

Słowa kluczowe: typologia zabudowy, zabudowa wielorodzinna

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1. Introduction

Typology is the study of types. It is also a division according to defined rules as well as a set of principles enabling classification according to certain types. Housing Typology refers to ordering spatial and functional systems of single buildings and groups of buildings. It is developed on the basis of criteria depending on the objectives of such ordering, and usually plays an analytical, directive or generative function. A typological approach to analyses, guidelines and the creation of new solutions is similar to a game requiring the observance of some rules.

This article presents examples of various typological classifications of contemporary residential housing, at the same time pointing out discrepancies occurring in some of them. The author proposes the typology of shaping multi-family housing on the plan on the grounds of basic geometrical figures, such as point, segment, line, and plane. The article presents a generative use of this typology in search of different variants of housing development. It also shows a similarity of typology to a game in which a consistent compliance with the rules of division enables progress to be made like in a game with different levels of difficulty.

2. Typological classification of contemporary multi-family housing

As far as contemporary residential housing is concerned, the most important typological classifications were created in the second half of the 20th century by Helmuth Sting (typology of access) [11], Roger Sherwood (typology of forms) [10] and Friederike Schneider (typology of configurations) [9]. The Polish literature of that period established the notion of a quite simplified typology of access dividing multi-family buildings into: buildings with staircase access, corridor access and gallery access. Against this background, Hanna Adamczewska-Wejchert's research on 1980s architecture stands out as it records new types of building development that came into being at that time [1].

In the early years of the 20th century several new significant publications came out which presented a typological approach to new solutions in multi-family housing which did not always have legible criteria of classification. For instance, in the Polish edition of 2011 of Ernst Neufert's textbook *Bauentwurfslehre* there is a division into point houses (point system development), linear development and block housing. However, it also includes a typological group called a 'shield house' (a building of a considerable length and height) [7, p. 149]. Such a classification encompasses both 'development' and 'house', which raises doubts. In addition to that, apart from the criterion of the housing development's shape on the plan, there is also the criterion of height, generally speaking, the size of the housing development. However, it is not clear whether, and to what degree, this concerns all the types.

In Günter Pfeifer and Per Brauneck's typology [8, p. 24-25] there is a surprising lack of point system with a simultaneous, excessively developed, classification of rows. The isolation of a separate type of *perimeter block – perforated* is not convincing, as there are many examples of perforation in a continuous building line or infill development whose cases are not presented here. The isolation of an *infill* as an individual type is not convincing either.

It seems that each of the remaining types may in certain conditions play the role of an infill. What is more, the *single-aspect row* isolated in this classification assumes that one of the longer sides will be adjacent to another building, which undoubtedly constitutes the form of an infill.

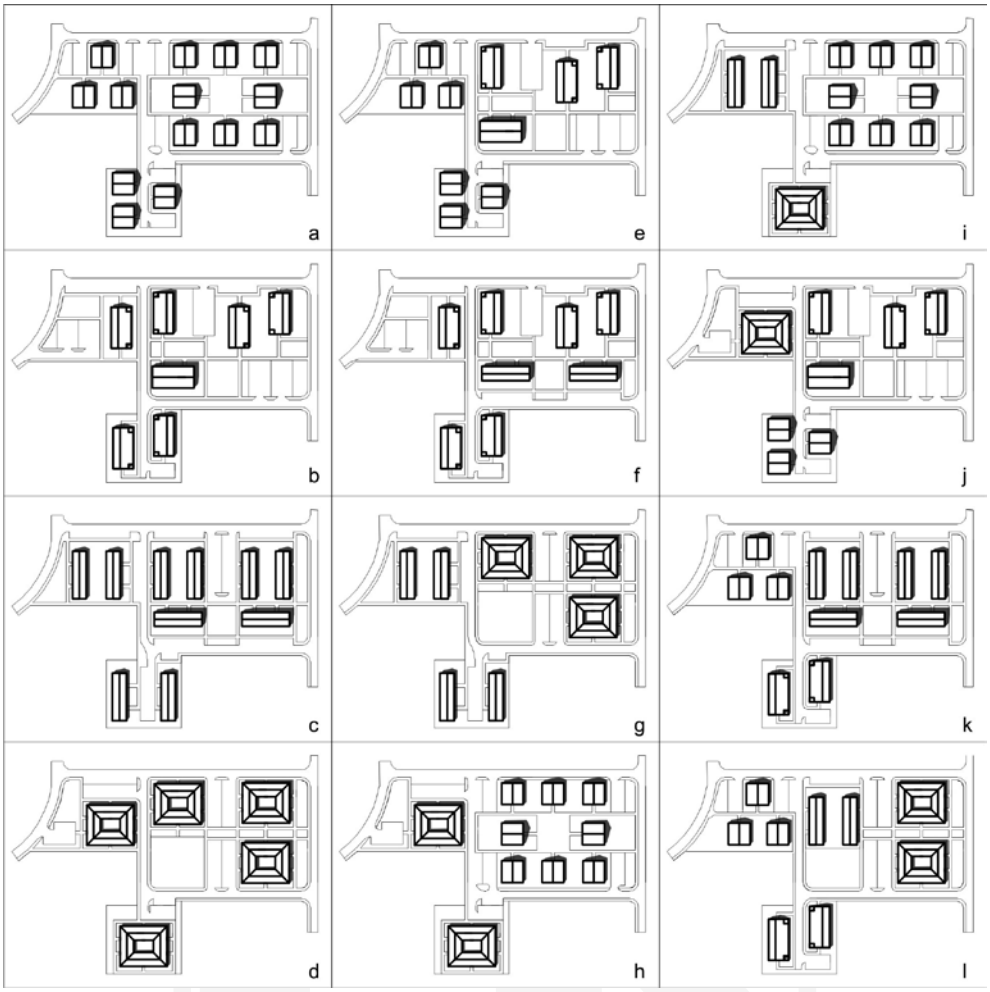
However, it is the oversized typology by Javier Mozas and Aurora Fernandez Per [6, p. 26–35] that raises the most doubts. First of all, one of the types consists of '*houses*' in the sense of single-family houses, which in itself casts a shadow on the clarity of the classification criteria. Moreover, a division into *blocks* and *city blocks* is also unclear as some sub-types in both typological groups are repeated and the very name 'block' refers on one occasion to the shape of a building and at another time to one, two or four detached buildings. Equally surprising is Ernst Neufert's selective use of the height criterion, such as *high-rise buildings*. It is difficult to resist the impression that Mozas and Fernandez Per's classification is first of all an attempt to register various forms of contemporary residential housing at the cost of the methodological correctness of the typology proposed. On the other hand, a valuable proposition made by the aforementioned authors is the introduction of a type called *mixed solutions* which encompasses complex residential structures containing elements typical of the previously defined types.

The fullest and probably the most consistent typology of residential housing is proposed by Bernard Leupen and Harald Mooij in their book *Housing Design. A Manual* [5]. Beginning with Giulio Carlo Argan's 'typological levels' (configuration, structure, scenery) [2], they expand them by adding an *urban ensemble* and extend the 'level' of configuration dividing it into *residential building*, within the framework of which they examine *spatial organization of the dwelling* and *dwelling access* as well as *dwellings*. The 'levels' of structure and scenery are presented in detail as: *structure*, *skin*, *scenery* and *service elements* [5, p. 49]. Among many accurate categorisation proposals by Leupen and Mooij special attention should be paid to the *mat* building [5, p. 152–155], and in the scope of access typology to the category *street*, meaning the access to the dwelling directly from the terrain level [5, p. 173–175]. The typology's drawback is a lack of distinction between single- and multi-family housing. Due to this fact the aforementioned categories of *mat* and *street* can be referred to both commonly used simple solutions and original complex spatial structures.

3. The proposed typology of multi-family housing

On the grounds of existing typological divisions, and taking into consideration the explicitness of the classification criteria, the following typology has been proposed, namely the typology of spatial systems of multi-family housing according to the criterion of its shape on the plan on the basis of the similarity to primary geometrical figures, such as: a point, segment, line or plane. It includes punctual, segmental, linear and planar development. The above-defined types of housing differ first of all in terms of the shape and dimensions of the buildings projections.

The notions of punctual development or *point system* (in German: *Punkthäuser*) and linear development or *linear system* (in German: *Zeilenbau)* have been established in the



Ill. 1. Variants of multi-family housing development in the city of Cracow, Wańkowicza street, a-d – one type of housing development, e-h – two types of housing development, i-k – three types of housing development, l – four types of housing development

theory of residential housing architecture, whereas the notions of segmental and planar development are practically non-existent. Segmental housing can be described as a group of detached buildings with usually rectangular and not very long projections, but clearly elongated in relation to the width. The planar development means a group of buildings adjacent to each other or linked with each other, which create a development of considerable length and width but relatively low height. The planar development rarely appears in the

typology of multi-family housing as one whole group. It is presented as individual typological groups, such as: courtyard development, quarter development, comb development, and fishbone development.

4. Mixed housing systems

Apart from the aforementioned homogeneous housing systems made up of one-type buildings, there is also the possibility to combine these primary types, existing next to each other or in individual 'layers' of the housing development. A housing development consisting of different types is called a mixed housing development. In the mixed housing development, theoretically, it is possible to create six combinations of two basic types of housing and four combinations of three basic types of housing. It is also possible to create a combination of all four basic types.

The above-described typology can be used for making variants of housing development. A variant concept of the land development of the group of municipal multi-family buildings in the city of Krakow, Wańkowicza Street, developed by the author of this article (Fig. 1), can be presented as an example. In the first place, four homogeneous housing systems were considered: punctual, segmental, linear and planar (Fig. 1a-d). Satisfying the investor's requirement concerning the creation of the housing estate with the use of various types of buildings, the following variants of the housing development were proposed: consisting of two (Fig. 1e-f), three (Fig. 1i-k) and four (Fig. 1l) types of building development. The variants reflect theoretical assumptions of shaping building development with the use of primary types and their combinations, whereas individual buildings, their number and method of placement in the group is obviously a matter of choice of an almost unlimited number of possible solutions.

5. Typological games

Games and typology have something in common – the necessity to obey the rules. In the case of typology, these are the classification criteria. As it turns out, they are not always complied with. The adoption of certain criteria and their consistent application makes it possible to develop and 'play' specific typological 'games' in which the proposed typology in its generative function may be a starting point for searching first for subtypes and then for their subsequent combinations. The increasing degree of complexity of such combinations enables the pursuit and development of more and more complex systems – individual levels of the typological game. In the case of directive typology, the increasing complexity of the set of types may mean a growing precision of directives, while in analytical typology it may serve the purpose of ordering the research process enabling the detailed analysis of some issues without detriment to the logical structure of the whole process. It is worth remembering that non-compliance with the adopted division criteria may deprive the aforementioned activities of their seriousness and in extreme cases turn them into a meaningless game.

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