

Construction of Student Hostels at the Beginning of 21ST Century¹

Nikola Cekić¹, Olivera Ilić², Aleksandar Jovanović³,

¹ *PhD, Department of Public Buildings Design, Faculty of Civil Engineering and Architecture, University in Nis, Serbia*

² *PhD student, Faculty of Civil Engineering and Architecture, University in Nis, Serbia*

³ *PhD student, Faculty of Civil Engineering and Architecture, University in Nis, Serbia*

ABSTRACT

The topical issue of academic population housing at the beginning of the 21st century, especially in the Balkan area is focused on the more rational urbarchitectonic, functional organization of characteristic floor plan volumes and residential units in them. The authors emphasize the need for a different designing and conceptual formation of the residential space for the users, giving primacy to housing structures with ante-rooms and common areas, which is a core element for improvement of socialization links and emotional stability of student residents, and for organization of residential semi-groups. Such approach fundamentally changes the belief where one residential unit was directly linked to the common communication area, floor corridor, in general, it is a new transformation of residential volumes and the form of collective housing, it is a new concept of building of student hostels as urbarchitectonic structures.

PAPER

The need for construction of student housing buildings at the beginning of 21st century, especially in Balkan countries is notably increased. The fact that, for instance, in Serbia every seventh student has accommodation in a student hostel, and the situation is similar in many countries in the world, indicates that in comparison to the present state of affairs in the European countries, the accommodation capacity should be at least doubled. Student hostels should be reconsidered as organizational urbarchitectonic, physical structure for which a small number of institutions in the world has defined standards of designing and building.

Analyses² done at the end of the previous century in the area of former Yugoslavia, at a 100% sample demonstrate that there were 252 structures with 52.153 beds³, intended for student lodging, located in 40 cities, constructed in the period 1871-1986, that of the total student population 13,59% were accommodated in the hostels, that a large portion of the structures 88,09% of them, were constructed purpose-wise - 222 buildings, with the dominant floor plans organized in two tracts – in 196 hostels, whereas 30 structures were converted to

¹ This paper is a part of the scientific-research project: "Construction of Student hostels in Serbia at the beginning of 21st century", approved by the Ministry of Science and technological development of the Government of the Republic of Serbia, in Belgrade, January 2011. Project manager, prof. Ph D Nikola CEKIĆ, grad. Eng. of Arch. The Faculty of Civil Engineering and Architecture of the University of Nis. Project number: 36037

² Nikola Cekić, "ANALYSIS AND ASSESSMENT OF HOUSING FLOOR PLANS OF STUDENT HOSTELS IN YUGOSLAVIA" – doctoral dissertation. The Faculty of Civil Engineering, Niš, 1989.

³ In Serbia: 39 hostels in 12 cities with 14.267 beds or 365,82 beds per structure, of which, in combined pupil-student hostels there were 2.753 beds or 5.27%.

serve of collective housing of academic population. The average capacity of the student hostel was 206,95 beds. There were 6 structures with one-tract floor plan and 8 structures with three-tract floor plan. 23 buildings were organized as condensed volume of a high-rise tower with a vertical communication core in its central area. One-tract atrium type floor plans could be found in 3 structures and two-tract atrium floor plans in 2 structures. The atrium designs were the rarest.

It is notable, from observing these structures, that the designers had different views of housing environment, starting from the height of the buildings, from ground level buildings to 16 floor buildings, the most of them having ground floor + 4 floor + attic. The number of residents was as high as 493 (!) on one floor, with most varied was of organizing the hygiene-sanitary units, with varied number of floors and the total number of beds in the structures. Single rooms constituted 5,37%, double rooms 54.99%, triple rooms 26,37%, multiple-bed rooms 12.03% and 1.74% for married student couples. No residential units for handicapped students nor any duplex units (two level units) were recorded. In 204 structures, there were housing units at the ground floor. During the summer holidays, none of the buildings had a status of a student hotel.

The least number of student rooms, mostly double, had its own hygienic-sanitary fittings, while only a few structures had a tea-kitchen inside the housing unit (added by subsequent intervention). Apart from that, existence of a large number of collective functions accompanying residence was recorded most frequently in the ground level or basement levels: common hygienic-sanitary rooms, tea-kitchen, restaurant, buffet, store, TV hall, outpatient clinic, post office, social activities room, drawing room, reading-room, gym and recreation rooms, reception desk, offices, technical facilities rooms etc. All this is to explain that the student dwelling standards in the structures was not on the satisfactory level, and the needs for remodeling and extension of the existing physical structures were necessary. By the end of the last century and at the beginning of this century, significant designing-construction changes were conducted, by reconstruction and extension of the student residential buildings in Serbia, for instance in Belgrade, Niš, Kragujevac and Novi Sad, where the quality of residence was notably improved by reforming of the residential units into apartments. As new faculties were established in Serbia, by the end of the last and the beginning of this century, several new student hostels were constructed in different locations.

The presented statistical data give a realistic image of the urbarchitectonic physiognomy and functional structure of student hostels in the territory of former Yugoslavia – which a larger part of present-day Balkan states, offer a potential to identify the deficiencies and give a global forecast for the new designing-construction future of the housing environment of academic population.

From the concrete analyses and acquired experience in design and construction, it is possible to give a fairly accurate prognosis of the student residential environment, an improved image. The analyses indicate that a student hostel should not be higher than ground level+4 floors+attic, nor should have a capacity bigger than 400 beds, that there should not be residential units at the ground level except those for the student married couples, with or without children, and except for the handicapped persons whose direct contact with the ground level is very important living requirement. It is also important that these structures should be located in the zone of university structures, with strong vegetation, park belts, with as little noise and traffic routes as possible.

In building new housing structures for the student population, an important position of the method of organization and design of characteristic floor volumes is opened up as there occurred the evolutionary changes due to the advent of digital technologies into educational processes and due to the changes in the lifestyle of the youth. The designing approaches in the second part of the last century, which favored the volumes organized in tracts with the

minimum standard in terms of available area, comfort and equipment of the residential unit are nowadays and untenable option. The needs of the users in the collective student housing changed greatly and overall socialization circumstances indicated that formation of the basic residential rooms need to be harmonized, remodeled to resemble the conditions of the previous environments from which the users have come. Therefore, the structure of the family social format, most frequently with 4-6 members is applicable. In architectural and forma terms this means a new, changed methodological and functional-designing approach in which the so-called apartment lodging is transformed into student flats, into organizational functional entities in which the communication between the rooms and corridors is not direct, but comprises an interpolated space with common functions for all the users. This is most frequently the living room, as a central location for gathering with or without an open area – loggia, balcony or a terrace, connected with the dining room and the tea-kitchen and with obligatory hygienic-sanitary fittings. The innovation of such conceptual design is the collective usage of the common area of the entrance part, in the so called “noisy” zone, while the rooms with one or two users are in the separated “peaceful” zone. Such method of organization of housing units disables the social isolation of the individuals which in the opinion of sociologists and psychologists is an important component in collective housing.

The further level of organizing the residential units is in so called “semi-groups” which have 4-6 users, which gravitate to the corridor communication where the semi-groups are integrated into an entity via the living room in the entrance zone. This is a place for encouraging of socialization relations and development of emotional stability of users. It consists of a tea-kitchen with the dining room, that is and open area, while the hygienic-sanitary fittings are dislocated into the peaceful zones. Whether a housing structure will be organized with two or three semi-groups zone depends on the total number of student residents. Regardless of whether there are two or three semi-groups, the number of users should not be higher than 12. Such way of consideration of functional organization of the residential unit volume with semi-groups brings about a new, other interpolation of useful ante room which can also have a minor common function – such as sitting and similar, between the rooms and the central living room serving as a partition area. The room is dimensioned for one, or two users at the most, in the peripheral position in respect to the corridor communication, without its own hygienic-sanitary fittings, separated with two cores where the residents gather, the primary and the secondary one, where the conditions for work and rest have a functional priority.

The concept of organization of the housing unit, with the advent of computers and peripherals will be changes, as the lower limit of useful surface area of the room will be increase for at least 10%, which will have a definitive repercussions on the increased dimensions of the façade front or the depth of the room. The limit of the so-called “pathological threshold” for the number of square meters per one user must be moved to 8.00m², regarding that the lifespan of such structures exceeds 150 years.

Finally, it should be expected the newly built and remodeled urbarchitectonically rearranged volumes of the student residential structures at the beginning of the 21st century will bring about:

- More rationally organized functions of characteristic volumes
- More comfortable, better quality stay of users in areas which have been changed in interior-exterior and functional terms, and which are not only superficial and formal, but offer new potential for more flexible activities in space.
- Changes in the standard of collective lodging reigned by an atmosphere and spirit of togetherness and not by isolation of an individual.

- New, otherwise consideration of living conditions of handicapped students and student married couples,
- More cost-effective designs for cheaper construction of a square meter of useful housing area
- More integrating correlation of student structures with the family type housing structures in the surrounding, thus completely eliminating the impression of a ghetto of student population.
- Notably increased living quality of the students, through usage of facilities and immediate surrounding (sport facilities, restaurants, stores, cultural centers....)
- Recommendation for the proposition of norms in the area of design of collective student housing facilities
- Faster and more effective studying at the faculties, through the improved living conditions
- More acceptable aesthetics of city-building space through better conceived architectonic designs of student hostels
- Improvement of the total image of the structures in the university housing stock
- Development and improvement within the network of structures of student hostels at the national level
- Improvement of scientific, professional views of designing and construction of student lodgings.

REFERENCES

Reference numbers in the text should be designated by square brackets, e.g., [1-3]. The references should be listed in the same order as cited in the text. See also examples in the REFERENCES section of this template [1-3].

- [1] Bach A. (1970.) WOHNHEIME; VEB Verlage für Bauwesen; Berlin.
- [2] Baylon M., Milenković B., Aleksić B., Živković M. (1977.) STUDENTSKI DOMOVI - PREDLOG NORMATIVA; Zavod za ekonomiku domaćinstva SR Srbije; Beograd.
- [3] Buleva D. Lj., Konstantinova E. A.(1978.) OBŠČEŽITIJA ZA STUDENTI I UČENICI; "Tehnika", Sofija, p. 7-35.
- [4] Cekić N.(1989.) ANALIZA I VREDNOVANJE STAMBENIH ETAŽA STUDENTSKIH DOMOVA U JUGOSLAVIJI; Doktorska disertacija, Građevinski fakultet Univerziteta u Nišu; Niš.
- [5] Cekić N. (1980.) OBLICI STUDENTSKOG STANOVANJA; Specijalistički rad. Arhitektonski fakultet Univerziteta u Beogradu; Beograd.
- [6] Cekić N. (1982.) STUDENTSKO STANOVANJE; Magistarski rad, Arhitektonski fakultet Univerziteta u Beogradu; Beograd.
- [7] Jesberg P. (1977.) STUDENTSKI STANOVI - TIPOVI I KOŠTANJE; Časopis:"DBZ" 2 / 77; Güttersloh, p.183.
- [8] Phyllis A., Mullins W. (1975.) EIN PLATZ FÜR STUDENTEN; Bauverlag GmbH; Wiesbaden.

[9] Nagel S., Linke S. (1970.) HEIMBAUTEN; “Bertelsmann Fachverlag Reinhard Mohn”;
Güttersloh.

[10] WOHNEN IN DER GEMEINSCHAFT; Karl Krämer Verlag; Stuttgart, 1971.