IBU International Journal of Technical and Natural Sciences 1 (2020) 14-21

"CONTEMPORARY TENDATIONS IN INTERNATIONAL RESIDENTIAL BUILDINGS"

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Abstract. *Architectural design of contemporary residential buildings is one of the most interesting part of architectural design. Contemporary residential buildings contribute to the urban character, context and vitality of the cities. They need to be integrated with their architectural design to the urban context, local character, size and development in order to create architectural design responses in strategic level and form the urban identities of the cities of tomorrow. Designing of contemporary residential building focuses on specific analysis of the building form, layout, functionality, landscape design, environmental performance and residential amenity. Architects have a responsibility to the future generations to enrich and design the contemporary residential buildings, to understand the significance of a place and respond to it. Contemporary residential buildings should create a response to their cultural, social, historical, political, economic and physical environments. Specific attention in this research will be given to analysis of contemporary tendations and different design approaches in residential apartment buildings with consideration of their urban context, adequate public access and architectural space. The expected outcome results in this scientific paper is to identify the contemporary design approaches in residential buildings and create application at the international education processes.*

Keywords: *architectural design, typology, contemporary residential buildings*

1. RESIDENTIAL BUILDINGS (INTRODUCTION, CHARACTERISTICS)

Contemporary residential buildings contribute to the context, urban character and vitality of the cities. They need to be integrated with their architectural design to the urban context, local character, size and development in order to create architectural design responses in strategic level and form the urban identities of the cities of tomorrow. Residential buildings correspond to the natural and built features, social, economic and environmental factors. Designing of contemporary residential building focuses on specific analysis of the building form, layout, functionality, landscape design, environmental performance and residential amenity.

Principles for designing residential buildings are:

1. Urban Context and character
2. Built form and scale
3. Density
4. Sustainability
5. Landscape design
6. Amenities
7. Safety
8. Housing diversity and social interaction
9. Aesthetics

2. LOCAL URBAN CONTEXT (CONNECTION BETWEEN URBAN CONTEXT AND SHAPE OF THE FASADE AND BUILD ENVELOPE)

Architectural Residential Buildings respond and contribute to the urban context and local character. Urban context comprises the key natural and built features of the specific location, which includes social, economic and environmental factors.

The desired future character of the residential building can vary from:

- preserving the existing look of the urban development area or
- establish new character based on different uses, street patterns, subdivisions, densities and typologies. (Fig 1)

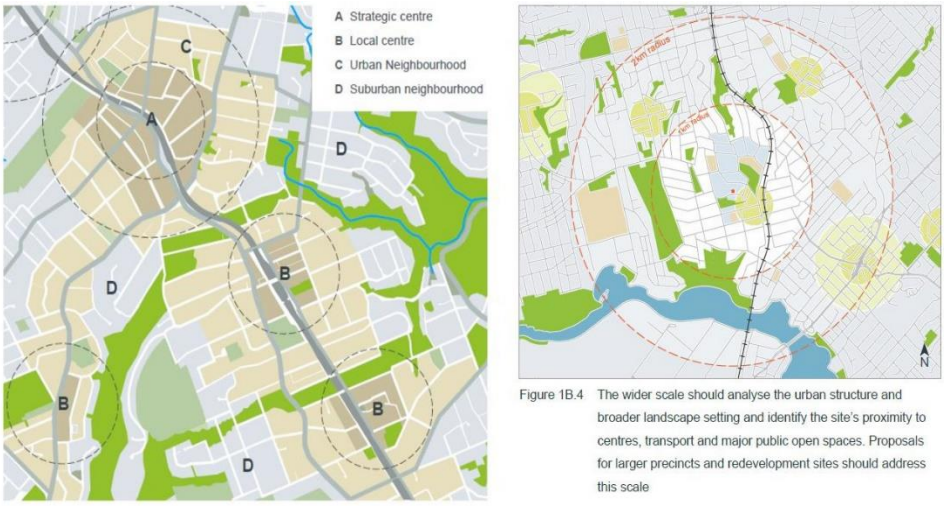

Figure 1 The urban context and location of residential flat buildings is determined by factors, such as neighborhood character, accessibility to transport, jobs and services and environmental considerations

Analysis of the urban context and surrounding area is one of the crucial defining and shaping elements of residential buildings. Analysis of the location of the residential building and site is very important, particularly for the elements of daylight distribution and possibility of solar potential of the facades of the buildings, because the surrounding buildings can create shadow on other buildings and effect the solar PV potential of the facades of the building. (Fig 2)

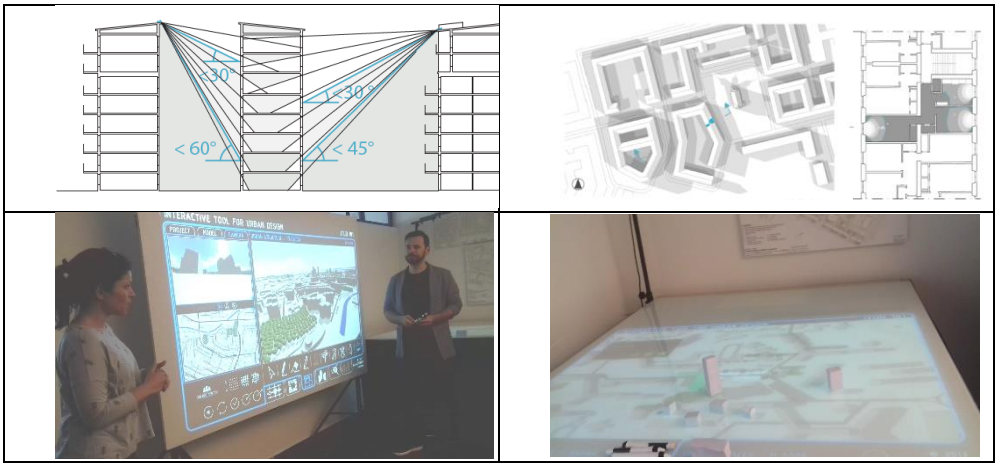

Figure 2 Interactive Tool for Urban Design, Bratislava, Slovakia 2018

The location of residential buildings is determined by urban context and character. Density of residential area should correspond to the density appropriate to the site and its context, according to projected population, infrastructure, public transport, community facilities and the environment.

3. CONTEMPORARY TENDATIONS OF INTERNATIONAL REFERANCE BUILDINGS

3.1 Contemporary aesthetics of built form and scale
- Contemporary use of colors, shape and form
- Contemporary use of modern materials and textures

3.2 Contemporary tendations in apartment's interior design

3.3 Sustainable building's development design solutions and tendations
3.4 Contemporary residential complexes

3.1. Contemporary Aesthetics of Built Form and Scale

Residential buildings should have built form appropriate to the existing or desired future character of the streets-capes and surrounding buildings.

Good Building Form should have good proportions, balanced composition of elements, layout and structure. variety of colors, materials and textures, corresponding to the urban local context. (Fig 3)

Figure 3 Aesthetics of international examples of Residential Buildings

Design Aesthetics of facades of larger Residential buildings includes:

- Organization of principal building mass by dividing a large form into several smaller forms to minimize visual impact,
- Organizing building's mass into base and top in order to express different vertical elements,
- Using horizontal emphasis on a tall building and vertical emphasis on wide buildings to balance the overall size. (Fig 4, Fig 5, Fig 6)

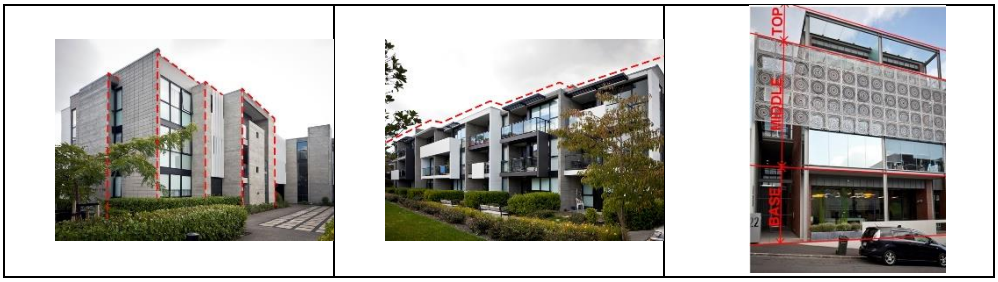

Figure 4 Analysis of the Design Aesthetics of facades of larger Residential buildings

Figure 5 Design Aesthetic of the facades in Residential buildings using different shapes and volumes, as well as combination of different materials

Figure 6 Design aesthetics of buildings facades using different colors and contract shapes and materials

3.2 Contemporary Tendations in Residential Building's Apartment Interior Design

Architects are defining various segments open-space interior design in order to designate different living or working zones, which can be accomplished by incorporating different changing floor levels, shifts in surface colors and textures, islands for kitchen separation, furniture groupings, and lighting to improve the visual organization of space. (Fig 7)

Figure 7 Contemporary Tendations of Interior Design in Residential buildings

3.3. Sustainable Building Development Design Solutions and Tendations

Contemporary Residential Buildings correspond to sustainable design: energy efficiency, heating and cooling systems reducing correlation on technology, natural cross ventilation and sunlight, renewable technologies, recycling and reuse of materials and waste, use of sustainable materials, etc. (Fig 8, Fig 9)

Figure 8 Sustainable green building design in International Residential Buildings

Figure 9 Sustainable green building design in International Residential Buildings

3.4 Contemporary Residential Complexes (mixed-use development, contemporary complex of residential buildings, landscape design development, security and safety solutions, contemporary amenities)

Residence Complexes often use functions with mixed-use development. Mixed use development includes multiple uses and function in one building. In apartment buildings this is usually achieved vertically with different uses stacked above one another. In Fig 10, there is schematic presentation of mixed-use development of residential buildings, which include: residential, commercial, retail:cafe and restaurants and underground parking. (Fig 11)

Figure 9 Residential complexes mixed-use development

Figure 10 International example of Cevahir Residential buildings in Skopje

Residence complexes often have mix-use functions, which include: retail- cafe and restaurants, commercial areas, parking, sport areas: fitness, pools, residential areas, relaxation amenities, landscape organization with parks, pools, green development, which give character and modern contemporary development of the residential complex. (Fig 12, Fig 13)

Figure 11 International example of mix-use Residence Complex

Figure 12 International example of mix-use Residence Complex

3.5. Landscape design in Residential Complexes

Architectural design of Contemporary Residence Complexes has an integrated and sustainable system between the buildings and attractive landscape design of the property. (Fig 14, Fig 15)

Figure 13 International Contemporary Residential Complex and landscape design

Figure 14 International Contemporary Residential Complex and landscape design

3.6. Safety in Residential Complexes

Good design should optimize safety and security, and provide quality public and private spaces with clearly defined secure access. Each apartment has planned security and safety design. (Fig 16)

Figure 15 International example of apartments with applied security and interior design

3.7. Contemporary Amenities in Residential Complexes

Architectural design of Contemporary Residential Buildings corresponds positively with the living environment with efficient layouts of amenity area, retail area, commercial area, swimming indoor and outdoor pools, relaxation amenities, sport facilities. (Fig 17)

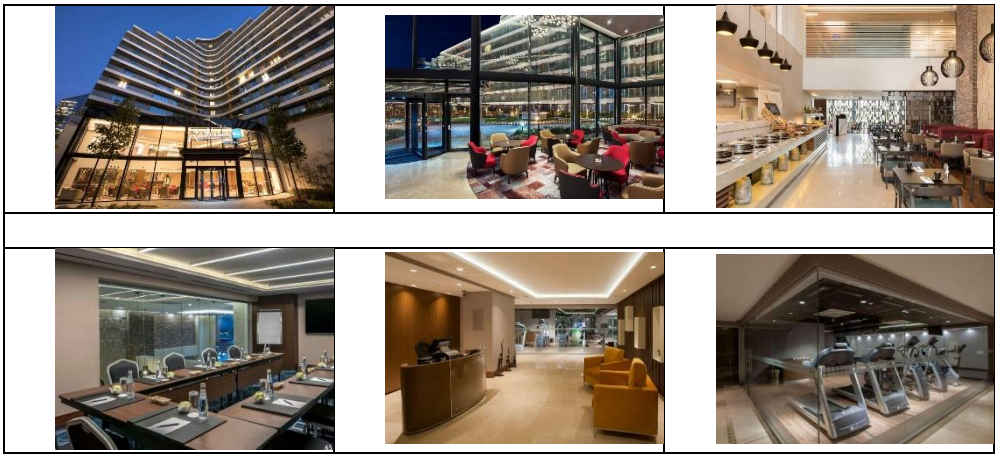

Figure 16 International example of Residential complex and combinations of different types of amenities: retail area, commercial area, fitness center, hotel, conference halls

4. CONCULUSION

Contemporary tendations in architectural design of International Residential buildings require integrated approach in many aspects:

1. Contemporary design corresponding to the urban context
2. Contemporary build shape and form
3. Contemporary apartments with modern open plan organization and interior design
4. Sustainable design - integration of the buildings with green technologies development
5. Landscape architecture with corresponding organization with parks and green development
6. Contemporary style of Residence complexes with organization of mix-use development and amenities: retail centers, restaurants, commercial areas, sport areas: fitness, pools, residential areas, relaxation amenities development.

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