

## Modern office buildings in the historic center of Chisinau (the three case studies)

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### *Rezumat*

*The number of office buildings and business centers has grown in the last 10 years. There was a need for an analysis of composition aspects and classification of business centers built in the center of Chisinau during this period. As an example of such an analysis to demonstrate in this article, I have selected three of the most striking office buildings, typical of studied period, that have appeared in the center of Chisinau in the last decade: the Office building "Accent Business Park" ("Eximbank"), the International Business Centre "SKYTOWER", and the International Business Centre "Le Roi". On the basis of this analysis, the classification of office buildings has been carried out: urban composition, type and principles of three-dimensional architectural composition, color solutions.*

**Keywords:** architecture, compositional principles, office buildings, classification, analysis, business center, three-dimensional composition, color, facade, proportion, composite center, visual composition.

### 1. INTRODUCTION

The architecture of Chisinau, which has a rich history spanning almost six centuries, evolved gradually. The historic city center, which is composed of the architecture from different eras, reflecting the compositional techniques of various architectural styles, has evoked increasing interest from modern architects and researchers.

The city center was always full of public buildings, which play an important role in the socio-political, administrative and economic management of the country. Each era having their own space-planning and stylistic requirements for these buildings. Today they coexist and are supplemented with new buildings, causing on-going debate among architects, artists and residents of our city.

Modern life creates the need for architectural structures, which only yesterday, no one would have thought of. These include office buildings and business centers, which have grown in numbers rapidly over the last twenty years. The time has come when we can conduct a detailed analysis of the composition architecture used in office building of the modern era and classify the buildings on the compositional principles.

## 2. ANALYSIS OF OFFICE BUILDINGS

The classification of office buildings using the next generation of architectural principles of composition was carried out on the basis of deep analysis of the buildings constructed in the city of Chisinau in the last decade. As an example to illustrate the analysis in this paper three of the most striking office buildings were selected which are typical of the period studied. These are: the Office building "Accent Business Park" ("Eximbank"); the International Business Center "SKYTOWER"; and the International Business Centre "Le Roi". Projects for these buildings were designed by a group of architectural firms "ARD" by architect George Telpiz (Fig. 1.).



Fig. 1. Images of Business centers: "Accent Business Park", "SKYTOWER", "Le Roi"

### 2.1. The International Business center "Accent Business Park" ("Eximbank")

The first of these projects for construction was for an office building "Accent Business Park" ("Eximbank"). It appeared on the main thoroughfare of the city (Stefan cel Mare 171/1) in the existing urban setting in 2007. The building is located in close proximity to the recreational park area between the State Pedagogical University and the National Center for Children and Youth "ARTICO" (Fig. 2.).

In terms of urban composition, the building has a small area (0.33 ha) and is a vertical dominant building block. It is parallel to the main street, and identifies the direction of the "fall" of the relief. The current spatial composition develops vertically.

The architectural composition of the building is a semi-closed twelve-level composition, built at the junction it uses straight and curved forms made up of cylinders and rectangular prisms that are typical in this situation. The combination, in turn, led to the creation of more complex geometric mixed shapes. The overall composition of the building was vertical development, stopped by a rectangular, horizontal element resting on the cylinder. The proportions of height and width of the building are 1/1.23. The ratio of height to diameter of the vertical cylinder equal to 1 / 4.85.

Stylobate of the building serves as a base of architectural composition and its size gives it not only stability, but also makes it possible to "fix" the whole composition to the active relief.

Divisions of facades reveal its architectural form and scale of the surrounding buildings reflect its functional and constructive solution. The colours used are based on soft contrasting materials (stone and glass). This reveals and reflects the tectonics of the building (Fig. 2.).

The most impressive view of this building is when walking on the main street from the square of Dimitrie Cantemir. In this case, the viewer's attention is focused on the architectural composition of the curved glazed plane with a vertical cylindrical element as a composite center.

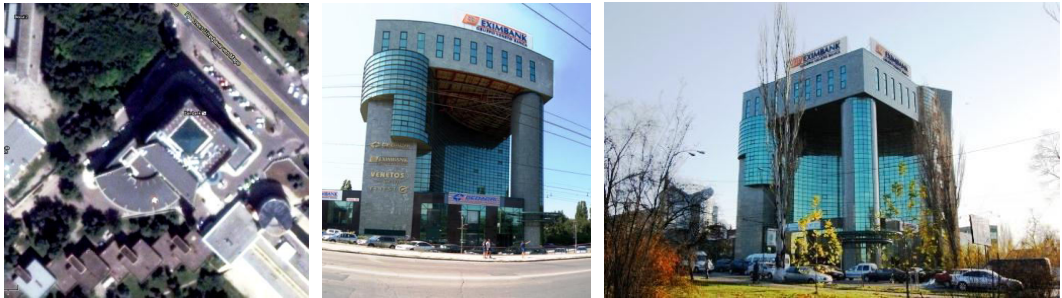


Fig. 2. Business center "Accent Business Park" (situational scheme, images of building)

At the same time, it should be noted that due to the small area of the building, it was impossible to put the building at a greater distance from the road, which would visually reduce the overall scale of the building and thus facilitate urban planning composition. Using a location further away from the "red line" would give the possibility increase the height of the building. This would visually bring it closer to the proportions of the "golden section" and cylindrical shapes decide the proportions of "classical" Doric columns. Reducing the mass of complete visual composition in a horizontal rectangular prism would help to give lightness and grace to the building. This could contribute to the continuation of the vertical elements beyond the upper limit of the composition (Fig. 2.).

## 2.2. The International Business Center "SKYTOWER"

The second of these office buildings is the International Business Center "SKYTOWER". It is situated in the center of Chisinau on Vlaicu Parcalab Street, between the "Main Post Office" and the business hotel "Leograd". According to experts, this twelve level building is the first business center of class "A", built in Chisinau (Fig. 3.).

From the point of view of urban composition, it was built on a small rectangular area and is the dominant feature in this block. Its facades are parallel to the facades of the existing buildings, revealing the shape of the site it was development on. Here we are dealing with the vertical developed spatial composition of the closed type.

The architectural composition of the business center is based on a vertical dominant form, as a quarter of the cylinder, "dissected" the entire height of a rectangular prism, revealing the compositional center. The building is visually deployed towards pedestrians crossing

the main street Stefan cel Mare. This is a priority and the most advantageous direction for the perception of the whole composition of the business center. The composition of the base used a completed triangular prism with a curved edge, accentuating the main entrance to the building. In this way the whole static composition receives a dynamic element. The vertical development of the building was stopped by a horizontal curved element which is part of the dominant form.

The ratio of width to height of the building is within 1/1.1. In base of the building is a square with sides of 36 meters. The base of the architectural composition of the building visually adds to the strength of the building and distributes the flow of employees, visitors and customers, changing the scale of the building.



Fig. 3. Business center "SKYTOWER" (situational scheme, images of building)

Composite divisions of facades reveal the architectural form on the basis of similarity, sets up its own scale for the building and reflects its functional and constructive solution. The colours of the building are designed to have a cold nuance. This identifies and reflects the tectonics of the building, showing the outer decorative material (glass).

Glass with a mirror coating was selected as a finishing material, which allowed the building to fit in more easily with the surrounding environment. This reduced the overall visual scale of the building, which made getting permission for the composition easier (Fig. 3.).

However, we must note that due to the small size of the area of the building (only 0.2 hectares), the authors have had to "put" the building outside of the "red line." If the area of the building was larger, we could reduce the visual scale of the building by putting it further back from the red line.

### 2.3. The International Business Center "Le Roi"

The last of the office buildings is the International Business Center "Le Roi" which is located on the "red line" of Sfatul Tarii street, next to the hotel "Dacia", surrounded by representatives of international organizations, government embassies, banks and elite hotels (Fig. 4.).

According to the urban plan, it is a nine-storey building, that uses a small rectangular area (0.1 hectares), repeating its shape. It is not a high-rise building dominating the block. The spatial composition of the building can be attributed to the closed type with vertical development.

The composition of the business center is a combination of vertical dominant rectangular prisms with large triangular elements which are decorating two facades of the building. Composition of the building has a distinctly dynamic character through the using of triangular forms which are in the typical position. The base of the architectural composition is revealed by the use of visually solid finishing material and a small number of divisions of the facades (Fig. 4.).

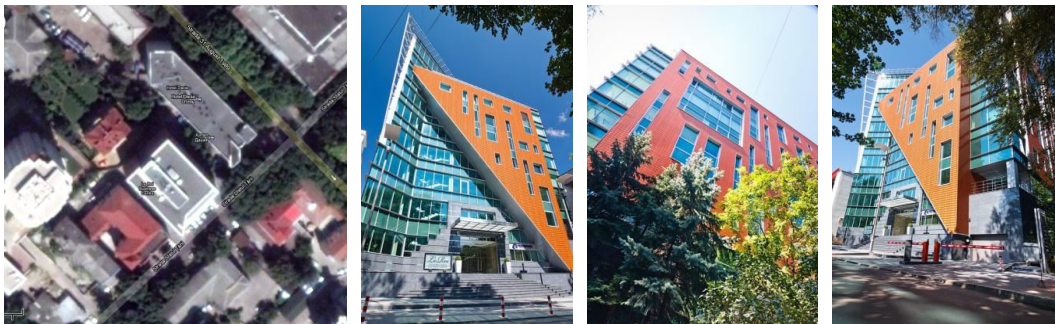


Fig. 4. Business center "Le Roi" (situational scheme, images of building)

The proportion of width to height of the facade is  $1/1.37$ . In terms of the building it fits into a rectangle with sides of 24 by 33 meters, which is the same proportion. Composite divisions of the facades reveal its architectural form, using vertical rectangles and triangular elements that show the dynamic of the building facades.

The colour of the building is based on the contrast and identifies the geometry of the construction of the architectural composition and demonstrates the exterior finishing materials. Static forms of the dominant rectangular prism has a glazed cold tone. The dynamic triangular elements of the facades with ceramic tiles use an active orange colour to give contrasting warm tones and emphasize the vertical development of the composition. The front decoration of the business center helps to visually facilitate the perception of the building, allowing it to fit into the environment due to the effect of the reflecting glass (Fig. 4.).

The composition and colour of the building was constructed on the basis of static and dynamic contrast. This has made for a certain variety and novelty in the construction and has attracted particular attention. Most outstanding is the main facade, showing all the pronounced features of the architectural composition of the building.

## CLASSIFICATION OF OFFICE BUILDINGS

Analysis of these business centers allows us to identify and show a variety of compositional principles, to compare and classify compositional techniques used in the design of modern office buildings in the city of Chisinau. Detailed analysis of these buildings allows for the classification of office buildings of the modern era using the following principles:

1. On design features:
  - Building, reconstructed and adapted for office functions
  - Building, originally built by the project office center (new).
2. The number of floors used in a building:
  - Low-rise buildings (1-2 floors)
  - Building high-rise (3-5 floors)
  - Multi-storey buildings (6 or more stories)
3. On urban composition, that is, by location:
  - Buildings near the center line, but not in itself, in green (recreational) zones;
  - Buildings built in housing estates, surrounded by existing buildings;
  - The buildings involved in the perimeter building blocks that stand in the "red" line.
4. By the type of three-dimensional (architectural) composition:
  - Closed type - composition of a building using simple or complex geometry.
  - Half-closed - composition of the building is somewhat blocked or freestanding forms, corresponding to the various functional areas of the building.
5. According to the principles used in the three-dimensional (architectural) composition:
  - Static composition - is built on the use of metric patterns and geometric shapes are typically positioned in space.
  - Dynamic composition - is built on the use of rhythmic patterns and geometric shapes in a free position in space.

## CONCLUSION

Classification of compositional architectural principles of office buildings can be extended by further research and applied not only to this, but also in relation to other social and administrative buildings, which have enriched the architecture of Chisinau in the last decade.

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