Typological and Functional Planning Features of Sports and Tourist Hotels

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Abstract. The study determines the relevance of breaking down sports and tourist hotels into categories, and provides the main factors that justify the feasibility of a typological classification. The paper presents the analysis of scientific works and publications on this issue. The authors have identified the following five hotel types: on-site hotels, resort hotels, hotels targeted at sports, ski hotels and hotels located on sports tourism routes. Moreover, they have determined the main features and differences of each hotel type. The paper focuses on accommodation conditions, urban planning, and architectural and space-planning characteristics of certain types of hotels. The authors give the examples of existing sports and tourist hotels with their unique sports focus, determine the bed capacity, functional and planning structure of all types of sports and tourist hotels, as well as the main functional assemblies, their filling, proportional spacing in the building, the relationship between premises. They have developed the functional and building stacking diagrams of each type of sports and tourist hotels.

1. Introduction
Hotels are an integral part of modern tourism infrastructure. The growth of a social role of tourism and the dynamics of its development across the globe have made it advisable to break down hotels into categories based on their purpose and functional profile. Sports and tourist hotels occupy a special place in the common typological classification of tourist hotels. The hotels of this type cater to the needs of people, whose main goals are rest, leisure and recreational activities, as well as health improvement.

The main factors influencing the development of infrastructure of sports and tourist hotels are: dynamic development, improvement resort and recreational areas, reshaping of views of a modern man regarding a healthy lifestyle, growth in the popularity of sport and its massive scale, increase in the investment potential and attractiveness of many sport kinds, transformation of sports into a highly profitable business. The above factors have become a prerequisite not only for the development of infrastructure of sports and tourist hotels, but also for their differentiation by purpose. This differentiation corresponds to the social needs of tourists in this direction.

Aspects related to the typological classification and functional planning features of sports and tourist hotels are the most pressing challenge and burning issue nowadays due to the constantly changing conditions of the provision of tourist services and requirements of the modern tourist market. The solution to this issue and implementation of the results in actual designing will satisfy the social needs of various groups of tourists and athletes in this direction, as well as address the issue of feasibility of operation of hotels of different types, including the standpoint of economic potential.
2. Review of recent research and publications

The works of such authors as Judy A. Ciguo, Cathy A. Enz, Josefa D. Martin-Santana, Eva Reinares-Lara, Pedro Reinares Lara, and Annabel J. Wharton, M. Mustapić, A. Vlahov, Yu. V. Lysenko, L. H. Lukianova, V. I. Tsybukh focus on the issues related to the architecture and typological classification of hotels and their differentiation by purpose.

In their paper “A Proposal for a New System of Classification for Hotels Based on Information Taken from a Multi-sponsor Loyalty Program” D. Martin-Santana, Eva Reinares-Lara, Pedro Reinares Lara propose an innovative classification of hotels based on guests’ assessments of the attributes that influence the choice of a particular hotel, sociological research on the compliance of requirements of tourists with the services provided by hotels in Spain [1]. The article by M. Mustapić and A. Vlahov “Importance of Design in Architecture for Positioning Hotels on Tourism Market” substantiates the importance of design in the field of tourism, especially in terms of hotel facilities, where it has become one of the key factors influencing business performance [2]. The work of L. H. Lukianova and V. I. Tsybukh “Recreational Complexes” provides for the typology of recreational environment, the targeted arrangement of space of recreational complexes, taking into account various types and forms of recreational activities, and types of recreational complexes and their space-planning design, in accordance with the pre-assigned functional program – medical treatment, recreation, tourism, including tourist hotels [3].

In terms of classification and typology, special attention should be given to the studies of Yu. V. Lysenko “Analysis of the Typology of Hotel Complex Operators (the Case of Marriott International, Inc.)”, “Study of the Hotel Classification System” and “Some Issues on the Hotel Classification System Formation”, which provide for an in-depth analysis of the common system of classification of hotel facilities and propose a new system of hotel classification that meets the design requirements [4].

The above studies cover a wide range of problems in the field of architecture and typological classification of hotels, but the issues of differentiation, and architectural and space-planning design of sports and tourist hotels remain understudied.

3. Research results

The functional and planning arrangement of hotels depends directly on their purpose and functional profile. The active dynamics of the hotel and tourist business development, expansion of a range of hotel services, improvement in the level of comfort and service have resulted in advisability of breaking down hotels by categories based on their purpose The purpose and functional profile of a hotel determine its place in the urban planning structure, capacity, comfort level, functional relationship between rooms, their composition, and the structure of hotel room capacity.

During the study of the functional planning and typological features of sports and tourist hotels, it is essential as a matter of priority to determine their place in the common typological classification of hotel facilities. There are two main groups of hotels: hotels intended for designated purpose (or target hotels) and transit hotels. Target hotels include business-type hotels (business hotels), hotels for recreation, leisure and rest (“vacation-interval” hotels), resort hotels (holiday centers) and other places of accommodation. Hotels for recreation, leisure and rest include the following types: tourist hotels, resort hotels, recreation centers, holiday centers. Tourist hotels are divided into sports and tourist, excursion and tourist and targeted tourist hotels (hotels, campsites, floating hotels, boatels). Transit hotels, in turn, are divided into hotels located on air, rail, water and road routes [5].

Sports and tourist hotels are the hotels designed to accommodate and serve athletes, sports teams and delegations, as well as tourists who prefer active recreation and leisure sports [6]. It is expedient to locate the hotels of this type as part of resorts, recreational and sports complexes and centers, near tourist facilities, in suburban recreational areas. The location of sports and tourist hotels depends on the sports infrastructure development in a particular region. An important factor is also the favorability of natural and climatic conditions for the development of a particular sport.

The main criteria that characterize the typological features of hotels are: room capacity, floor number, comfort level, functional purpose and profile, design solutions, and operation modes.
Such features as floor number, design solutions, and operation modes are common to all types of hotels, including those for sports and tourism purposes.

In order to make the typological classification of sports and tourist hotels, it is important to determine the criteria for room capacity and differentiation by functional features. Room capacity of a hotel is characterized by the number of beds or permanent sleeping accommodation. The room capacity of sports and tourist hotels is calculated in accordance with the following parameters: the total number of population of a particular region, existing indicator of the number of hotel beds per 1,000 inhabitants, standardized capacity ratio, average coefficient of the quality of natural and landscape resources of a region, room capacity of sports facility, or indicator of intensity of sports and tourism route, number of facilities of this type scheduled in the region. To determine the room capacity of sports and tourist hotels, it is advisable to use the following formula:

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M = \frac{(P+pv)(N-n)k}{1000e},
\]

where \(M\) – room capacity of a sports and tourist hotel; \(P\) – total number of population of a particular region; \(p\) – room capacity of a sports facility; one-time daily intensity of a sports and tourist route; \(v\) – coefficient of average occupancy of a sports facility by tourists and athletes, who have arrived in a particular region; \(N\) – standardized ratio of the number of hotel beds per 1,000 residents; \(n\) – existing indicator of the number of hotel beds per 1,000 inhabitants of a particular region; \(k\) – coefficient of the quality of natural and landscape resources of a particular region for certain sports functions; \(e\) – number of sports and tourist hotels in a particular region [7].

The diverse specifics of the operation of sports and tourist hotels have made it expedient to break down them into categories based on functional features and profile. Thus, it is advisable to define five types of sports and tourist hotels: on-site sports and tourist hotels; sports and tourist hotels of a resort type (sports and tourist resort hotels); ski sports and tourist hotels; hotels with certain sports orientation; hotels located on sports tourism routes [6].

**On-site sports and tourist hotels** have general sports orientation, without certain sports specifics. Hotels of this type should be located near multi-purpose sports centers or large-scale sports facilities designed for a large number of spectators (stadiums, racetracks, athletics arenas, etc.). The optimal room capacity of such hotels is 250-1500 beds, depending on the local socio-economic, demographic factors and sports infrastructure development of a particular region. The functional and planning structure ensures the uniform allocation of all functional units and assemblies in the building: unit of reception and auxiliary facilities (8-10% of the total area), public catering unit with a restaurant and café (10% of the total area), unit of entertainment, and cultural and community service facilities (5-10% of the total area), unit of conference and meeting rooms (3-5 % of the total area), unit of sports and fitness areas includes a gym, pool, sauna, fitness room, medical service (10-15% of the total area), the administrative and housekeeping unit (5-7% of the total area). The room capacity of this hotel type provides for single and double standard rooms, suites, junior suites and apartments. The examples of this hotel type are: NH Barcelona Stadium Hotel (Barcelona, Spain), Hellas Hotel (the town of Yuzhnyi, Ukraine), Naftovyk Hotel (the town of Akhtyrka, Ukraine).

**Sports and tourist hotels of a resort type (sports and tourist resort hotels)**: the optimal capacity of such hotels is 300-1000 beds. This type of hotels caters to a relatively long stay and rest in one place, and sometimes provides the possibility of preventive treatment and health improvement. It is expedient to locate such hotels in resort areas with favorable natural and climatic conditions to provide guests with the opportunity to participate in certain kinds of sports: on the sea coasts with a moderately warm climate in winter, in mountainous areas, near healing and mineral springs. The peculiarity of this hotel type is the accommodation of sports (in particular, football) teams during the winter off-season and the arrangement of training camps for athletes. Therefore, these hotels are independent of seasonal fluctuations: during the holiday season they render services to tourists, and during the off-season period the possible location of training camps for athletes.
The area of sports and tourist hotels of a resort type is of an impressive size (up to 10 or 15 hectares). Therefore, these hotels have a wide range of sports fields and grounds. In percentage terms, the area of sports infrastructure of this hotel type is up to 50% of the total area and contains: outdoor swimming pools, standard-sized football pitches, golf courses, tennis courts, mini-football, volleyball, basketball, squash, water parks, etc. A characteristic feature of the first-class and top-class hotels located on the sea coasts is the availability of their own beach.

The functional and planning structure of sports and tourist resort hotels assumes a well-developed sports infrastructure both outside and inside. It is advisable for hotels of this type to arrange a great number of rooms for treatment and health improvement: SPA centers, massage rooms, catering facilities offering diet food. During the holiday season, the functional and planning structure of these hotels provides tourists with a wide range of entertainment and cultural facilities (halls for recreation, leisure activities and rest, billiard rooms, night clubs, children’s play rooms, conference and meeting rooms, multi-purpose halls). The functional units are allocated (in the total hotel area) as follows: reception and auxiliary premises – 5%, catering – 10%, sports and recreation – 10-15%, entertainment – 5-10%, entertainment, and cultural and community service – 5-10%; administrative and housekeeping –5%, accommodation - 45-50%.

The functional and planning arrangement of sports and tourist resort hotel units have the following features:

- availability of two or more restaurants and cafes (self-service buffets, waiter service, national cuisine) with a capacity of 90-100% of the total room capacity;
- availability of lobby area with a bar in the unit of reception and auxiliary premises;
- availability of several conference or meeting rooms of different capacity (10-500 persons), tour and travel desk or office (18-20 m²), currency exchange office (8-10 m²) or bank branch or outlet (20-25 m²);
- availability of indoor swimming pools (at least 17×8 m in size), fitness centers and spa centers with Finnish saunas, Russian saunas, massage and relaxation rooms;
- possibility of arranging separate cottages with rooms with modern amenities in the hotel area.

Sports and tourist resort hotels have standard double and single rooms. They may provide family-type rooms or additional third beds in the room. The number of suites and apartments is minimal, and depends on the hotel category. There are a lot of sports and tourist hotels of a resort type in countries with the well-developed resort infrastructure and a mild favorable climate in winter (Turkey, Israel, Cyprus, Egypt). The examples of such hotels are: Adora Golf Resort Hotel (Belek, Turkey), Concorde El Salam Sport Hotel (Sharm El-Sheikh, Egypt), Sport 4 FC Hotel (Eilat, Israel).

Ski sports and tourist hotels designed to accommodate and serve tourists and athletes-skiers. In recent years, skiing both at the professional and amateur level has gained a high popularity across the globe. This direction is currently being developed, and occupies a leading position in the field of winter tourism. The above factors have led to the creation of a network of ski sports and tourist hotels. In summer, these hotels are used by tourists for mountain hiking and sightseeing activities. Ski sports and tourist hotels include ski tourist complexes, and are located in close proximity to areas with the developed ski infrastructure: near lifts and ski trails. Their capacity is 100-600 beds. As a whole, the room capacity of this hotel type depends on the development of ski complex infrastructure, its scale, lift number, as well as the demographic and socio-economic factors and capabilities of the region. The functional structure of this hotel type includes public catering facilities (restaurant or cafe), sports and health facilities (saunas, gym), and a range of cultural and consumer services. Ski sports and tourist hotels provide ski and snowboard rental and other sports equipment necessary for skiing. The functional units are allocated in this way: unit of reception and auxiliary rooms – 6%, unit of public catering – 8-10%; unit of cultural and consumer services – 5%; unit of sports, recreation and entertainment facilities – 6-8%; administrative unit – 3-5%; unit of housekeeping and technical premises – 5%; accommodation area – 65-70%. Ski sports and tourist hotels rarely have conference or meeting rooms, since this type of
hotel mainly caters to tourists who prefer skiing, and is not targeted at professional sports delegations and associations. It is advisable to provide stores to sell and maintain ski equipment, ski passes, premises of a ski school, a medical center (emergency room). The entertainment unit often includes the recreation and leisure facilities that reflect the local flavor (cafes and restaurants of national cuisine, specific baths, vats, etc.). The room capacity of this hotel type includes 1, 2, 3-bed standard rooms, as well as junior suites and suites. It is reasonable to arrange separate dormitories for 6-10 beds in ski sports and tourist hotels to accommodate youth groups. But it is mandatory to arrange separate premises or storerooms for storing and drying ski equipment. The network of ski sports and tourist hotels is most widespread in European countries with mountain terrain, where skiing and mountain tourism is traditionally developed (Italy, Austria, Switzerland, France, Andor). In recent years, the infrastructure of ski sports and the construction of ski sports and tourist hotels have been developing dynamically in the countries of Eastern Europe (Bulgaria, Romania, Slovakia, Poland, Ukraine). The examples of this type of hotel are: Ruka Hovi Hotel (Ruka, Finland), Ice Angels Hotel (Borovets, Bulgaria), Bukovel Hotel Complex (Polianitsa, Ukraine).

Hotels with certain or specific sports orientation are located in the area of sport centers that focus on certain types of sports – tennis, golf, biathlon, football, etc. These hotels are also part of specialized sports complexes or a sports base, or camp. Hotels with specific sports orientation render services to professional athletes and athletes who prefer specific kinds of sports. The capacity of this hotel type is 50-300 beds. Hotels located in the area of sports and training camps accommodate athletes and representatives of sports teams. Specifics of various sport kinds affect the functional and planning structure and features of the sports infrastructure development in the hotel. Therefore, special attention is given to the arrangement of sports and recreation facilities. In the structure of functional zoning, sports grounds and facilities occupy up to 70% of the total area, since they are the main focus of the sports complex and the corresponding sports and tourist hotel. Accordingly, if the hotel is targeted at football players, its sports infrastructure includes training football pitches, playgrounds for mini-football, and it is possible to build a stadium for arranging practice games. If the hotel’s focus is ski-biathlon, there is some potential for this hotel to develop the infrastructure of ski and l-koller trails. The units of the functional and planning structure of this hotel type are allocated as follows: public catering unit (restaurant or cafe, canteen that provides special food to athletes with a capacity of 60-75% of the total area with a full service cycle); unit of sports and recreation facilities (specialized sports hall of up to 200 m², specialized gym with the total area of 64 m², special sports equipment rental desk, coaching rooms, rooms for methodical classes, massage rooms, sauna, medical center, rest rooms, etc.); unit of cultural and consumer services (conference hall with a capacity of up to 200 seats, press center, shops selling special sports equipment, hairdressing salon; accommodation unit (80% of the total area – double standard rooms). A special feature of this hotel type is a catering unit that meets special dietary needs of athletes and gives a sports team chef the opportunity to cook in the kitchen. It is advisable to provide a small percentage of single rooms and suites for representatives of the management and coaching staff. The examples of sports and tourist hotels with specific sports orientation are: Superior Golf Hotel (Kharkiv, Ukraine), Biathlon Hotel (Ufa, Russia).

Hotels located on sports tourism routes are in the midway points of routes – the point of departure (initial), the point of destination and intermediate point. The most popular routes are: cycling, hiking, water, and mountain. Tourist clubs and organizations arrange such routes taking into consideration the specifics of local natural and climatic conditions (the availability of water bodies, mountains, interesting tourist attractions and landscape formations). It is advisable to locate hotels in the points of departure and destination, and to create a network of tourist bases, campsites, tent sites in the intermediate points. Since the main goals of certain tourist categories (cyclists engaged in water sport) are to have a rest, relax and experience nature, and therefore, their stay at hotels is short-term, and there is no need to create a network of hotels with modern amenities and a wide range of services. It is expedient to design budget or economy class hotels located on sports tourism routes which are of a budget class and economy class (1, 2-star), with a capacity of 30-100 beds (depending on intensity of a certain tourism route). The functional and planning arrangement of hotels located on sports tourism routes represents: entrance unit.
with a lobby and reception desk (total area of up to 100 m² with maximum capacity); unit of administrative premises with offices of the director, reception officer and accounting space (area of up to 80 m² with maximum capacity); catering unit with a cafe or self-service buffet and incomplete production cycle (capacity – 50-60% of total area); unit of sports and recreation facilities with the sports equipment rental and repair office (total area of up to 25-35 m²), rooms for instructors (total area of up to 8-12 m²), medical center (total area of up to 12 m²); production and economic premises; accommodation area. It is possible to arrange a recreation room and sauna. Thus, the main features of the functional and planning structure of this hotel type are catering facilities with a limited range of services, as well as sports equipment rental and repair offices.

Hotels of this type are situated on small land plots (up to 0.5-0.8 ha), with the allocation of entrance, recreation, parking and sports areas. Depending on the specifics of sports tourism routes, the hotel area may provide berths for boats, kayaks, parking for bicycles, etc. The room capacity of this hotel type includes 2-4-bed rooms of 2 and 3 categories. The examples of hotels located on sports and tourism routes are Silmaci (Latvia), Bili Horvaty (Yaremcha, Ukraine).

The typological classification, and functional and planning features of sports and tourist hotels are shown in Table 1.

Table 1. Typological classification of sports and tourist hotels

| No | Sports and tourist hotel type | Optimal category | Optimal capacity | Functional structure | Examples |
|----|-------------------------------|------------------|-----------------|----------------------|----------|
| 1  | On-site                       | 3-4 stars        | 250-1500 beds   | ![Functional Structure](image) | 1. NH Barcelona Stadium Hotel (Spain)  
2. Hellas Hotel (Ukraine) |
| 2  | Of a resort type              | 4-5 stars        | 300-1000 beds   | ![Functional Structure](image) | 1. Adora Golf Resort (Turkey)  
2. Sport 4 FC (Turkey) |
| 3  | Ski sports and tourist        | 2-4 stars        | 100-600 beds    | ![Functional Structure](image) | 1. Ruka Hovi Hotel (Finland)  
2. Ice Angels Hotel (Bulgaria) |
| 4  | With a certain sports orientation | 2-3 stars    | 50-300 beds     | ![Functional Structure](image) | 1. Superior Golf Hotel (Ukraine)  
2. Biathlon Hotel (Russia) |
| 5  | Located on the routes of sports tourism | 1-2 stars | 30-100 beds   | ![Functional Structure](image) | 1. Silmaci (Latvia)  
2. Bili Horvaty Hotel (Ukraine) |
4. Conclusions

Thus, this study has resulted in the identification of the socio-economic, urban planning and functional factors that determine the need to break down sports and tourist hotels into categories. The authors have defined five types of hotels, which correspond to different operation modes. These modes cater to the needs and interests of tourists and athletes according to the functional purpose: sports events, inter-season training camps for professional sports teams, active sports tourism, ski tourism, etc. The systematization of the typological classification of sports and tourist hotels makes it possible to define the main criteria for the hotel architectural and planning arrangement: capacity, comfort level, functional structure, room stock. As a result, this classification justifies the economic feasibility of operation of sports and tourist hotels.

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