

**SPORT I TURYSTYKA**  
**ŚRODKOWOEUROPEJSKIE CZASOPISMO NAUKOWE**

**T. 6**

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## Wstęp

W 2023 r. czasopismo „Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” ukazuje się szósty rok. Jest kontynuacją czasopisma „Prace Naukowe Akademii im. Jana Długosza w Częstochowie. Kultura Fizyczna”. W drugim numerze czasopisma zostały zaprezentowane prace Autorów z różnych ośrodków naukowych w Polsce i na świecie.

Część I – *Dzieje kultury fizycznej w Polsce i na świecie* – odnosi się do następującej tematyki:

- szlaki turystyczne województwa wileńskiego w okresie międzywojennym;
- historia Czechosłowackiego Towarzystwa Turystycznego do 1938 roku.

W części II, zatytułowanej *Teoria i metodyka wychowania fizycznego i sportu*, przedstawiono dwa artykuły dotyczące:

- wpływu zmęczenia mięśnia czworogłowego uda po skurczu izotonicznym na niektóre zmienne kinematyczne i dokładność wykonania rzutów różnych przez piłkarzy;
- zawodów sportowo-pożarniczych Ochotniczych Straży Pożarnych w kontekście węzłowych problemów współczesnej polskiej wsi.

Część III – *Uwarunkowania zdrowia, postawy prozdrowotne, jakość życia* – odnosi się do następującej tematyki:

- wiek menarche młodych sportswomenek w świetle zmiennych społeczno-środowiskowych;
- wskaźniki otyłości wśród dziewcząt i chłopców w wieku 7–9 lat w świetle zróżnicowanej aktywności fizycznej: badania dwuletnie.

Część IV czasopisma dotyczy problematyki turystyki i rekreacji. W tej części zamieszczono dwa artykuły omawiające:

- turystykę sportową jako nową formę aktywności turystycznej – terminologia i historia pojęcia;
- społeczny i gospodarczy potencjał branży turystycznej i hotelarskiej w krajach Unii Europejskiej.

W ramach części *Biogramy, dyskusje, polemiki, recenzje, przegląd wydawnictw, sprawozdania* dr hab. prof. UJK Michał Mazurkiewicz przybliżył monografię autorstwa Andrzeja Pawluckiego pt. *Pedagogia olimpijska. Homo phycicus*. W kolejnej publikacji prof. dr hab. Tomasz Jurek zaprezentował monografię Re-

naty Urban pt. *Tradycje sportów konnych w Polsce do 1939 roku*. Doktor Mateusz Rozmiarek przygotował recenzję filmu *Pan od muzyki* w reżyserii Christophe'a Barratiera (w kontekście implikacji dla trenerów oraz psychologów sportu).

Pragnę złożyć serdeczne podziękowania Recenzentom za cenne i życzliwe uwagi, podnoszące wartość niniejszego periodyku. Dziękuję za współpracę Autorom publikacji zamieszczonych w czasopiśmie naukowym. Jednocześnie wyrażam nadzieję, że liczba Osób zainteresowanych publikowaniem własnych osiągnięć naukowych w kolejnych wydaniach czasopisma „Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” poszerzy się.

Eligiusz Małolepszy



# **CZĘŚĆ I**

## **DZIEJE KULTURY FIZYCZNEJ I TURYSTYKI W POLSCE I NA ŚWIECIE**



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## Tourist Routes of the Wilno Voivodeship in the Interwar Period

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### Szlaki turystyczne województwa wileńskiego w okresie międzywojennym

#### Streszczenie

Celem niniejszego artykułu jest zbadanie i opisanie systemu szlaków turystycznych istniejących w latach 1920–1930 na terenie województwa wileńskiego II Rzeczypospolitej. Wyniki badań zostały opracowane z zastosowaniem metodologii typu historycznego. W latach 1920–1930 w województwie wileńskim istniało wiele różnorodnych szlaków turystycznych: szlaki turystyczne dla turystów pieszych oraz szlaki turystyczne dla osób podróżujących koleją i drogami wodnymi. Dzięki zróżnicowaniu tematycznemu wspomniane szlaki turystyczne wychodziły naprzeciw potrzebom turystów z Wileńszczyzny i innych województw w zakresie wypoczynku i rekreacji; w tamtym czasie możliwe było odwiedzanie miejsc historycznych i obiektów dziedzictwa historycznego i kulturowego, wypoczywanie przy brzegach licznych rzek i jezior, korzystanie ze spływów kajakowych wzdłuż rzek lub podróżowanie po nich transportem wodnym. Z analizy autentycznych źródeł oraz materiałów archiwalnych wynika, że – biorąc pod uwagę ilość i różnorodność szlaków turystycznych funkcjonujących wówczas w tym regionie – lata dwudzieste i trzydzieste XX wieku można uznać za okres przełomu w rozwoju turystyki w województwie wileńskim. Przedstawiona w ar-

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tykule analiza systemu szlaków turystycznych, istniejących w latach 1920–1930 w województwie wileńskim II Rzeczypospolitej, może posłużyć jako materiał do dalszych badań dotyczących historii turystyki w Polsce, na Litwie i na Białorusi.

**Słowa kluczowe:** historia turystyki, szlaki turystyczne, województwo wileńskie, okres międzywojenny.

## Abstract

The purpose of the study is to research the system of tourist routes of the Wilno Voivodeship in the 1920s and 1930s. To convey the intended study, historical-type methodology was applied. In the 1920s and 1930s, a large number of tourist routes were developed in the Wilno Voivodeship, both for hiking and for trips favouring road, rail or water transport. These routes were quite diverse in subject matter and could satisfy a variety of tourist requests in organizing recreation: visiting historical and cultural heritage sites, relaxing on the shores of numerous water reservoirs, as well as rafting on large and small rivers of the region or walks and trips along them by river transport. Finally, based on the analysis of the available primary sources issued in the covered period, it could be stated that the 1920s and 1930s may be treated as a turning point in the development of tourism in the Wilno Voivodeship, at least in terms of the number and variety of tourist routes then functioning in the region. The presented study may constitute useful material for any further research devoted to the history of tourism in Poland, Lithuania and Belarus.

**Keywords:** history of tourism, tourist routes, the Wilno Voivodeship, the interwar period.

## Introduction

The history of tourism today is still replete with issues that require detailed study, including those that relate to the first half of the 20<sup>th</sup> century. This period is very important for the history of tourism. The 1920s and 1930s were characterized by the emergence of tourism on the territory of the Wilno Voivodeship<sup>1</sup> in its modern sense. It was then that many diverse tourist routes were developed for the first time, the first guides to tourist places in the region were published, large investment projects in the tourism sector were implemented. The Polish state, realizing the possibilities of tourism in the field of integration and economic development, began to exert a purposeful impact on the tourism sector, contributing to the revival and promotion of tourism in the Wilno Voivodeship. All this determined an unprecedented increase in the number of tourist arrivals to the territory of the Wilno Voivodeship in the 1930s, as well as the intensification of tourist activity among the local population. Therefore, the

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<sup>1</sup> In the text of the article, the names of cities, towns and villages, as well as rivers and lakes, streets and squares are given in the form in which they were used in the 1920s and 1930s, that is, in Polish and in accordance with the Polish tradition. Since today these objects are located on the territory of Lithuania and Belarus, the official spelling of their names today is carried out according to the traditions and rules of the Lithuanian and Belarusian languages, respectively, and may differ from the historical ones and used in this article.

study of the historical experience of tourism development and the functioning of a network of tourist routes in contemporary conditions of active development of the tourism industry is of particular relevance and importance.

During the interwar period, the following types of tourism became widespread in the Wilno Voivodeship: water tourism, the most popular form of which was various rafting activities on rivers and lakes; child and youth tourism in the form of recreation centers, camps and hikes; ecological tourism, which involved visiting forests, swamps and other especially valuable natural areas; auto-tourism; resort and wellness tourism, where the functions of climatic resorts were performed by the lakes of the Braślów and Narocz groups (this territory was also called the Wilno Lake District), where the tourist infrastructure necessary for resorts was created; rural tourism, when rural residents provided conditions for recreation for citizens in the summer months<sup>2</sup>.

The historiography of this subject matter is represented by works of a very diverse nature: both small essays on individual phenomena and processes, descriptions of the life of local communities, and in-depth monographic studies of individual areas of social life in the interwar period. The historical fate of this city and region (the city of Wilno is located today on the territory of Lithuania, while most of the former Wilno voivodeship is now the territory of Belarus) determined the interest in it of both Polish, Lithuanian and Belarusian authors. Among the Polish authors of the interwar period, who were the most significant for the study of this topic one should mention P. Krasnopolski,<sup>3</sup> Z. Kotosowski,<sup>4</sup> M. Węgrecki,<sup>5</sup> S. Leszczycki<sup>6</sup> and Tilgat.<sup>7</sup> Modern Polish authors whose research is thematically close to this topic are R. Gawkowski,<sup>8</sup> J. Chelmecki,<sup>9</sup> K. Jędrzejczyk,<sup>10</sup> M. Kacprzak<sup>11</sup> and E. Małolepszy.<sup>12</sup> Among the Lithuanian historians who have made the great-

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<sup>2</sup> A. Белья, *Развіццё турызму ў паўночна-ўсходніх ваяводствах міжваеннай Польшчы: пачатак складання мазаікі*, "ARCHE" 2014, no. 7–8, pp. 259–294.

<sup>3</sup> P. Krasnopolski, *Wilno i województwo Wileńskie*, Nakł. Wiktorii Krasnopolskiej, Wilno 1937.

<sup>4</sup> Z. Kotosowski, *Szlaki turystyczne po Braślowszczyźnie*, Magata, Braślów 1933.

<sup>5</sup> M. Węgrecki, *Ruch turystyczny w Polsce w roku 1929*, Nakł. Związku Polskich Towarzystw Turystycznych, Warszawa 1930.

<sup>6</sup> S. Leszczycki, *Uzdrowiska Polski: ich rozmieszczenie oraz rozwój w latach 1921–1938*, Kraków 1939.

<sup>7</sup> T. Wilgat, *Rozmieszczenie przemysłu pensjonatowo-hotelowego w Polsce*, Kraków 1939.

<sup>8</sup> R. Gawkowski, *Wypoczynek w II Rzeczypospolitej: kurorty, rekreacja, zabawa*, Wyd. Dragom, Bielsko-Biała 2011.

<sup>9</sup> J. Chelmecki, *Państwowe i społeczne inicjatywy rozwoju ruchu turystycznego i krajoznawczego w Polsce w latach 1919–1939*, [in:] K. Ruchniewicz, J. Tyszkiewicz, W. Wrzesiński (ed.), *Przełomy w historii: XVI Powszechny Zjazd Historyków Polskich*, vol. 1, Adam Marszałek, Toruń 2000.

<sup>10</sup> K. Jędrzejczyk, *Polskie Towarzystwo Krajoznawcze (1906–1950): zarys dziejów*, Wyd. Państwowej Wyższej Szkoły Zawodowej, Włocławek 2006.

<sup>11</sup> M. Kacprzak, *Towarzystwo Rozwoju Ziemi Wschodnich, 1933–1939*, Wyd. Ibidem, Łódź 2005.

<sup>12</sup> E. Małolepszy, *Turystyka w działalności wiejskich organizacji młodzieżowych w Polsce do 1939 r.*, "Folia Turistica. Historia turystyki" 2008, no 19, pp. 141–153.

est contribution to the study of this thematic area is L. Šabajevaitė.<sup>13</sup> Among the Belarusian historians who are interested in the development of tourism and related fields in the territory of the Wilno Voivodeship in the interwar period are A. Biely,<sup>14</sup> I. Miełnikaŭ,<sup>15</sup> U. Ganski,<sup>16</sup> I. Citovič<sup>17</sup> and A. Hiecevič.<sup>18</sup> The studies presented in this historiographic review, on the one hand, create a basis for analyzing the system of tourist routes of the Wilno Voivodeship, and on the other hand, confirm the need for its further study. The issues raised in the study were not adequately covered either in Polish or in foreign (Belarusian, Lithuanian) historical science. To date, there are no comprehensive special historical studies that would be directly devoted to this subject matter. One of the current problems of studying the history of tourism on the territory of the Wilno Voivodeship is that today this territory is outside Poland and divided between Lithuania and Belarus. Accordingly, sources about the history of tourism development in this region in the 1920s and 1930s turned out to be stored in various archival and library institutions of these countries. In addition, Lithuanian and Belarusian historians in their studies of the interwar period are often limited to the territory within the modern borders of these countries and do not yet fully perceive the history of the interwar Wilno Voivodeship as an element of their own history. As a result, the territory of the interwar Wilno Voivodeship today is practically not considered as a single tourist region, which does not contribute to the comprehensive study of the history of tourism on its territory.

## Research Problems and Methods

While working on the article, the following research questions were formulated:

- What was the territorial organization of the system of tourist routes that operated on the territory of the Wilno Voivodeship in the 1920s and 1930s?
- How did the tourist and recreational resources of the region determine the structure and specifics of tourist routes and formed tourist sub-regions within the Wilno Voivodeship in the Interwar period?

<sup>13</sup> Л. Шабаявайце, *Развитие исторической науки в Вильнюсском университете Стефана Батория (1919–1939 гг.): диссертация кандидата наук*, Академия наук Литовской ССР, Вильнюс 1987.

<sup>14</sup> А. Белы, *Развіццё турызму ў паўночна-ўсходніх ваяводствах міжваеннай Польшчы: пачатак складання мазаікі*, "ARCHE" 2014, no. 7–8, pp. 259–294.

<sup>15</sup> І. Мельнікаў, *Заходнебеларуская Атланта 1921–1941 гг.: паміж Варшавай і Масквой*, Галіяфы, Мінск 2016.

<sup>16</sup> У. Ганскі, *Турызм ў Заходняй Беларусі (1921–1939)*, Ковчег, Мінск 2022.

<sup>17</sup> І. Цітовіч, *Краязнаўчы рух на тэрыторыі Заходняй Беларусі (1921–1939 гг.): дысертацыйнакандыдата навук*, Беларускі дзяржаўны ўніверсітэт, Мінск 2006.

<sup>18</sup> А. Гецэвіч, *Транспартішляхізносіну Заходняй Беларусі (1921–1939 гг.)*, "Vesnikof Yanka Kupala State University of Grodno" 2015, no. 3, pp. 6–12.

- How was the process of forming a network of tourist routes of the Wilno Voivodeship? Which subjects (public institutions, NGO, other stakeholders) took part in this process?

These research questions were answered by the historical analysis of primary sources, which are now stored in the Lithuanian Central State Archive in Vilnius and the Zonal State Archive in Molodechno, as well as the analysis of tourist publications of the interwar period and modern scientific research by Polish, Belarusian and Lithuanian authors. Information from these sources made it possible to form a holistic view of the system of tourist routes in the region and created a factual basis for answering the research questions posed above.

The degree of study of the research topic, the purpose of the study and research questions determined the pluralistic nature of its methodological approach. During the research and writing of the article, the principle of historicism, the objectivity principle and the consistency principle were applied. Methodologically, the article is based on the systematic approach combining the structural-functional, dialectical and hermeneutical methods. The author used the systemic and institutional approaches, as well as special historical methods: the typological method, the descriptive method, as well as the historic-geographic method. The methods of analysis and synthesis, induction and deduction, comparison and generalization were used as for general logical methods in the study.

## **The Formation of the Regional Structure of Tourist Routes**

Several hundred different tourist routes passed through the territory of the north-eastern voivodeships of Poland in the 1920s and 1930s. The Eastern Lands Development Society, the Wilno Society of Friends of Sciences, local divisions of the Polish Sightseeing Society and other public organizations and associations, as well as the tourist commission of the Wilno Voivodeship Administration, district tourism referents and travel agencies took part in their development. Most of them were then approved at the state level, and information about them was included in specialized reference publications.

Even before the end of the 1920s, 96 official tourist routes were developed and approved by the joint efforts of these organizations and individuals on the territory of the Wilno Voivodeship: land routes (including 31 pedestrian and 25 automobile ones) and water routes (including 28 small and 12 motorized ones).

A characteristic feature of the Wilno Voivodeship was that the number of water tourist routes laid on its territory was comparable to the number of land routes, which was due to the presence of significant water resources (rivers and lakes) on its territory, as well as insufficient development of the road network and infrastructure. This also largely determined the great popularity of water

tourism in the interwar period, primarily among young people. Most of the tourist routes in the region were developed as part of the Summer in the Eastern Lands promo campaign.

The Summer in the Eastern Lands promo campaign was held by the Eastern Lands Development Society together with the Ministry of Communications during 1934–1939. In the Wilno Voivodeship, it was held annually since 1935, in the period of time from June 1 to September 30. During this period, discounts on rail travel were provided for the participants of the action. The discount on travel was 45–75% of the full ticket price.<sup>19</sup>

It should be noted that summer holidays on the territory where the Summer in the Eastern Lands promo campaign was held were the cheapest in the whole country, and the level of their organization was quite high. Moreover, each tourist could independently choose the form and place of rest on the territory determined by the terms of the promo campaign. During this campaign, various tourist routes were developed. Most of the trips were organized through the Orbis travel agency, which the Eastern Lands Development Society actively cooperated with throughout its existence.

Overland tourist routes of the Wilno Voivodeship, developed as part of the Summer in the Eastern Lands promo campaign comprised:<sup>20</sup>

- tourist routes of the Wilno Suburban Area: Troki, Nowa Wilejka, Werki, Niemenczyn, Landwarów, Pikieliszki, Podbrzezie, Mejszagota, Suderwa, Olkieniki, Turgiele and Dziewieniszki;
- Wilno – Kobylnik – Miadzioł;
- Wilno – Olechnowicze;
- Wilno – Jaszuny – Turgiele;
- Głębokie – Dzenia;
- Dukszty – Druja;
- Królewszczyzna – Druja;
- Lida – Wilno;
- Nowe Święciany – Kobylnik;
- Orany – Wilno – Turmont;
- Oszmiana – Holszany – Wołożyn – Iwieniec.

The water tourist routes of the Wilno Voivodeship, developed as part of the Summer in the Eastern Lands promo campaign, included:<sup>21</sup>

- Narocz Lake – Narocz River – Wilia River;
- Dzisna Lake – Dzisna River – Druja;

<sup>19</sup> У. Ганскі, *Турызм ў Заходняй Беларусі (1921–1939)*, Ковчег, Мінск 2022, pp. 165–179.

<sup>20</sup> Lithuanian Central State Archive. Collection 51 “Wilno Voivodeship Administration”. Inventory 10. Case 443.

<sup>21</sup> Ibid.



- Dzisna Lake – Dzisna River – Dryświata River – Dryświaty Lake;
- Braslaw Lakes and Drujka River: Drywiaty Lake – Drujka River – Druja;
- Żejmiana River: Ignalino – Wilia River;
- Stracza River: Kobylnik – Wilia River;
- Mereczanka River: Jaszuny – Olkieni.

The tourist routes in the Wilno Voivodeship were serviced mainly by the Orbis travel agency with the support of the Polish Sightseeing Society. Local branches of the Polish Sightseeing Society often served as tourist information centers, and active members of the society served as a guides.<sup>22</sup>

Tourist trips in the Wilno Voivodeship were designed for a period of several days up to several weeks. Depending on the purpose, a trip plan was formed. For example, if it was a trip for religious purposes, then while choosing the objects visited, the emphasis was placed on monuments of church architecture, for example, the Chapel of the Gate of Dawn and the Cathedral in Wilno. In the case of a cultural trip, the emphasis was on castles, for example, the ruins of castles in Troki, Krewo, Holzszany, Miedniki Królewskie, and palace ensembles, for example, the estate of Michał Kleofas Ogiński in Zalesie near Smorgonie, objects of civil architecture of cities and towns, etc.

## Tourist Routes of the Wilno City and the Wilno Suburban Area

During the interwar period, the city of the greatest tourist interest in the northeastern voivodeships of Poland was Wilno. Tourists were attracted to it primarily by the rich historical and cultural heritage of the peoples who had inhabited this region since ancient times. The most visited objects in the city were numerous monuments of religious architecture (first of all, the chapel of the Gate of Dawn with the famous and especially revered icon of the Virgin Mary), the university, the ruins of the castle, palaces (bishop's palace, Small and Large Radziwill Palaces, Pac Palace, Chodkiewicz Palace, Tyszkiewicz Palace, Sapieha Palace, etc.), dwelling places of outstanding writers and poets (Adam Mickiewicz, Juliusz Słowacki, Ignacy Kraszewski), saints (Saint Casimir, Saint Andrzej Bobola), scientists (Joachim Lelewel, Jan Śniadecki, Jędrzej Śniadecki, Ignacy Domeyko) and statesmen (Józef Piłsudski, Jakub Jasiński, Emilia Plater, Szymon Konarski), as well as fairs and cultural events.<sup>23</sup>

Although in the interwar period museums were not as popular among tourists as they are today, Wilno had a great offer in this area. In the city, there were

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<sup>22</sup> Lithuanian Central State Archive. Collection 51 "Wilno Voivodeship Administration". Inventory 10. Case 1171.

<sup>23</sup> P. Krasnopolski, *Wilno i województwo Wileńskie 1937*, Nakł. Wiktorii Krasnopolskiej, Wilno 1937, p. 164.

museum collections of Stefan Batory University, the museum of the Wilno Society of Friends of Sciences, the archaeological and ethnographic museums of Stefan Batory University, the Belarusian Museum, museum collections of the Lithuanian Scientific Society, the Jewish Museum, the natural history museum of Stefan Batory University<sup>24</sup>.

Numerous fairs were also held in Wilno. On St Casimir's Day on March 4, the fair "Kaziuki" (Saint Casimir's Fair) was held on Łukiski Square, where mainly wooden products, curly gingerbread and bagels were offered for sale. On St George's Day on April 23, flowers, medicinal herbs, seeds were mainly sold on Eliza Orzeszkowa Square.<sup>25</sup> On the day of St John, June 23, on the square in front of St John's Church one could mainly buy flowers. On the day of St Peter and Paul, June 29, a fair of linen and wicker products was held in the Antokol district. On Palm Sunday, near almost all local churches, peasants from surrounding villages sold the so-called "Wilno palms" made from dried herbs, colorful immortelles, ribbons. Most of all, residents of villages around Lake Sałaty near Karolinka specialized in this. The fair of folk crafts operated on Castle Street and mainly fabrics, ceramics, linen and wooden products were on display.<sup>26</sup>

For the entrance to the Castle Hill in Wilno, tourists were charged a fee of 15 groschen for adults and 10 groschen for children and schoolchildren. On the left side of Mała Pohulanka Street, not reaching Zawalna Street, there was a botanical garden, the entrance to which was also paid – 30 groschen for an adult and 10 groschen for children and military. The fee was also taken for the entrance to the palace park in Werki – 20 groschen for an adult and 10 groschen for a child.<sup>27</sup>

From Wilno, citizens and guests of the city were offered regular trips to the nearby suburbs and surrounding areas: Trynopol, Kalwaria and Werki. In summer, river steamboat excursions were very popular: on working days, the steamer departed from Tadeusz Kosciuszko Street four times a day, at weekends and on holidays every hour, or in case of a large number of people every 30 minutes. Such a trip took about 1 hour to get there and about 30 minutes back. Along the route, on the river banks, many paid (in Tuskulany and Olkieniaki, 5 km from Wilno) and free (in Werki, 8 km from Wilno) beaches were organized. The same route could function as a land route, since public transport also applied

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<sup>24</sup> Lithuanian Central State Archive. Collection 51 "Wilno Voivodeship Administration". Inventory 6. Case 563.

<sup>25</sup> Lithuanian Central State Archive. Collection 51 "Wilno Voivodeship Administration". Inventory 6. Case 664.

<sup>26</sup> P. Krasnopolski, *Wilno i województwo Wileńskie 1937*, Nakł. Wiktorii Krasnopolskiej, Wilno 1937, p. 164.

<sup>27</sup> Lithuanian Central State Archive. Collection 51 "Wilno Voivodeship Administration". Inventory 5. Case 212.

along the same way. From Werki, vacationers could get to the picturesque Green Lakes by cab (about 5 zlotys with downtime of several hours) or rent a boat. The cabmen were waiting for their customers right next to the pier.

There was also a popular route from Wilno to Ponary, Landwarów and Troki (about 25 km) among vacationers at that time. Buses went there from Eliza Orzeszkowa Square 7 times a day on weekdays and more often on weekends. The one-way bus fee was 2 zlotys. On this route, tourists were attracted by the picturesque hilly landscapes of the surroundings of Wilno, as well as historical monuments and especially the ruins of a medieval castle.<sup>28</sup>

Numerous summer houses, which were rented out for the summer period for recreation to citizens, picturesque hills overgrown with dense forest, attracted vacationers to the town of Nowa Wilejka and its surroundings. Good and inexpensive connection with Wilno (15 minutes by rail, 20 minutes by bus, ticket price 20 groschen, or on foot along Subocz Street or Popławska Street) in combination with recreational resources (river, forest) made it one of the most popular summer holiday destinations among residents of the city in the interwar period.<sup>29</sup>

Going to rest in the nearest suburbs in the summer in the 1920s and 1930s was extremely popular among the residents of Wilno. In settlements located at a distance of 5 to 30 km from the city, even in the days of the Russian Empire, whole settlements consisting of small summer houses intended for renting to vacationers began to arise. In the first half of the 1930s, there was a boom in their construction.

The most popular destinations for summer holidays were the following: Wilno – Werki, Wilno – Troki, Wilno – Nowa Wilejka (about 15 minutes by rail, about half an hour by bus, the ticket price was 50 groschen, or on foot), Wilno–Zameczek (on foot from Zwierzyniec) via Karolinka, Wilno – Niemenczyn (it took about an hour to drive, the ticket price was 2 zlotys), Landwarów – Zawiasy (the last railway station before the Lithuanian border), Wilno – Rzesza – Pikieliszki – Podbrzezie (it was necessary to go by bus for a little more than an hour, the ticket price was 2.2 zlotys), Wilno – Mejszagóła (it took about an hour by bus, the ticket price was 2 zlotys), Wilno – Suderwa – Dukszty Pijarskie (there were no regular public transport connections), Wilno – Olkieniکی (a bus ride for about 2 hours for 4 zlotys), Wilno–Turgiele (the journey took about 1.5 hour for 2.5 zlotys), Wilno – Jaszuny – Soleczniki – Bieniakonie – Konwaliszki – Dziewieniszki (about 75 km, the trip time is about 3.5 hours)<sup>30</sup>.

<sup>28</sup> У. Ганскі, *Турызм у Заходняй Беларусі (1921–1939)*, Ковчег, Мінск 2022, pp. 165–179.

<sup>29</sup> S. Lenartowicz (ed.), *Przewodnik po Polsce. Polska Północno-Wschodnia*, Nasza Księgarnia, Warszawa 1935, pp. 12–29.

<sup>30</sup> Ibid.

## Tourist Routes of the Wilno Lake District

The basis for the formation of the network of tourist routes of the Wilno Voivodeship was the railway, which provided convenient communications both with the center of the voivodeship and with Warsaw and other major cities of Poland, which were places of formation of tourist demand and tourist flow heading to this region from other regions of interwar Poland.

Along the railway line from Warsaw and Białystok, the tourist route Orany – Wilno – Turmont was developed. At that time, the train covered the distance from Wilno to Orany in 1–1.5 hour, from Orany to the Turmont station on the Latvian border in 5.5 hours. For each station located along this line, a package of excursions and interesting places located no further than 5 km from the station that tourists could visit was developed. For example, during a similar excursion in Nowe Święciany, it was possible to hire a cab right at the station for 10 zlotys for the whole day. In this area it was recommended to go as far as Ignalino and take the train from there. In this town there was a reference tourist information point, a hotel, there were convenient ski trails and slopes 3–4 km long.

The narrow-gauge railway allowed tourists to get from Nowe Święciany to the Kobylnik station and the Narocz resort area in 7.5 hours. Tourists from Wilno travelling to Lake Narocz had to go to Łyntupy by an ordinary railway and change there to a narrow-gauge one.

A kind of continuation of this route was a branch of the narrow-gauge Dukušty–Druja railway (the border with Latvia), which allowed tourists to get from Wilno to the Brasław Lakes and the city of Brasławin in 4–5 hours. It was a tourist region with a sufficiently developed tourism industry for its time: hotels, restaurants, school and youth camps, etc. The tourist routes of Brasław County were designed in such a way as to combine picturesque landscapes with visits to historical and cultural attractions. The departure point of all tourist routes was the county center – the city of Brasław as the most convenient place for representatives of the board of the local department of the Polish Sightseeing Society to communicate with visiting tourists.

There were four hiking routes in the Brasław County: north of Brasław in the direction of Snudy Lake; west of the city in the direction of Opsa; in the direction of Miory and Leonpol; to Lake Dryświaty with an overnight stay. The first route provided for tourists to get acquainted with the Lake Strusto, visit the island on it by boat, then through the Strusto estate the route ran to the village of Okmienica<sup>31</sup>.

From the village of Okmienica, the route followed the shore of Lake Snudy along a good road through the villages of Krzywosielce, Pirtany to Jurany, a cou-

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<sup>31</sup> Z. Kołosowski, *Szlaki turystyczne po Brasławszczyźnie*, Magata, Brasław 1933, pp. 4–9.

ple of kilometers from Plusy. There tourists could explore the Lake Plusy. This place also offered overnight accommodation. From Plusy, the hiking path ran along the opposite shores of Snudy Lake in the direction of Zasnudzie, along the highway through the villages of Dańki and Obapie near Lake Wołos, then towards the town of Słobódka. In this village, those who wished could visit the officer's casino, restaurant and cafe operating at the local military unit.

The second walking route ran from the city of Brasław along the shore of Lake Drywiaty to the town of Opsa, 20 km from Brasław, where tourists were offered a tour of the estate, agricultural school and the lake. From Opsa, the route headed south through the villages of Miedziuki, the Albinowo estate to the village of Bohiń, where a lake, a chapel and an ancient Jewish cemetery could be visited. From Bohiń through the Hajdukowszczyzna, the route went along the shore of the lake to Czernica, to the factory estate of the Count of Plater, where a large textile factory was located. In the estate, overnight accommodation was offered to tourists on this route. From Platerówó, the return to Brasław was carried out through Nowy Dwór, Zamosze (overnight stay) and the Belmont estate.

The third route ran east from Brasław. The route went from the city through the town of Ikaźń and headed towards the town of Przebrodzie, where overnight accommodation was provided. Then the route went to the Roadside and Apasionki through Orzechówka to the town of Miory, where overnight accommodation was also provided. From Miory, the route went to the village of Orcy and further on through the villages of Bosiny, Malce, Ilmowiki to Dołhinowo, where tourists had to spend the night so that they could reach Leonpol the next day. One and a half kilometer from the town of Leonpol, tourists could see a memorial column in honor of the Constitution of the Polish-Lithuanian Commonwealth on May 3, 1791, and in the town itself it was possible to spend the night. Then the route ran towards the town of Druja, where tourists were invited to explore the Church of the Holy Trinity and the monastery buildings. Tourists could return from Druja to Brasław by narrow-gauge railway.<sup>32</sup>

The fourth walking route went from Brasław towards the villages of Jelnia, Usiany, Władysławowo to Lake Dryświaty. Overnight accommodation in tents was provided by the lake. From the lake, the route went to Czepukany and further to Rymszany, from where it was also possible to return to Brasław by narrow-gauge railway.

Numerous water routes were also available to tourists in the Brasław County. The most popular route started in the town of Dukszty and ran through the Dzisnand Dzisniszczce lakes, along the Dzisna River to the village of Kozjany, from where it went to the Dryświaty lakes through Lake Bohiń, then along the Dryświata River to Lake Dryświaty.

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<sup>32</sup> У. Ганскі, *Турызм у Заходняй Беларусі (1921–1939)*, Ковчег, Мінск 2022, pp. 165–179.

In addition, three automobile tourist routes were also available to tourists in the Brasław County:<sup>33</sup>

- Brasław – Opsa – Dryświaty – Rymszany – Widze – Bohiń through Czernica to the Platerów estate, and from there to Zamosze and the Belmont estate;
- Brasław – Jody (visit to the palace) – Pohost – Przebrodzie – Ikaźń;
- Brasław – Strusto – along the shore of Lake Snudy through Krzywosielce to Plusy. From there to Słobódka and Druja.

The town of Druja on the border with Latvia, which was a significant center for cultural, educational and religious travel, could be reached from Wilno by another railway line through the towns of Woropajewo, Królewszczyzna and Miory. There, tourists were offered, among other things, 18<sup>th</sup> century architectural monuments, noble estates and Catholic churches. Taking advantage of this route, tourists also had an opportunity to get acquainted with the sights of the city of Postawy, from where it was also possible to go to Lake Narocz by rented transport (in Postawy it was possible to rent an 18-seat bus, which belonged to the restaurant “Gospoda Polska”).

Due to the development of water tourism, every year in the Wilno Voivodeship the number of youth tourist bases and children’s recreation camps was gradually increasing. Especially for the purpose of organizing recreation for schoolchildren and youth, special tourist maps of the Brasław County were developed and published for better orientation in the terrain. The maps indicated water and land tourist routes and included various information necessary for organizing active recreation. Such special maps existed for water routes along the Brasław Lakes from Lake Drywiaty to the town of Druja and from Lake Dzisna along the Dzisna River to the town of Dzisna, as well as for the Dzisna – Głębokie hiking route.

Outdoor enthusiasts were also attracted by water routes along the Wilia River. Most of these routes began in the town of Wilejka, and they could end more than 250 km away at the very border with Lithuania. Likewise, water routes along the Narocz group of lakes were popular too – along the lakes of Narocz, Miastro, Batoryno and Białe, as well as along the rivers of Narocz and Miadziołka, with numerous rental points for pleasure boats, kayaks and sports equipment.<sup>34</sup> In addition, rafting was widely practised on other rivers of the Wilno Voivodeship: Stracza, Żejmiana, Merezanka, etc.<sup>35</sup> However, these routes were significantly inferior to the Brasław and Narocz routes in terms of popularity and the level of development of tourist infrastructure.<sup>36</sup>

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<sup>33</sup> Z. Kołosowski, *Szlaki turystyczne po Brasławszczyźnie*, Magata, Brasław 1933, pp. 4–9.

<sup>34</sup> Zonal State Archive in Molodechno. Collection 9 “Molodechno District Commandant’s Office of the State Police”. Inventory 1. Case 7.

<sup>35</sup> Zonal State Archive in Molodechno. Collection 10 “Wilejka District Commandant’s Office of the State Police”. Inventory 1. Case 152.

<sup>36</sup> Zonal State Archive in Molodechno. Collection 10 “Wilejka District Commandant’s Office of the State Police”. Inventory 1. Case 235.

It was also during this period that the first surge of tourist interest in the village of Mosarz near the town of Głębokie was noted. It was the former estate of the Brzostowski and Piłsudski families, where tourists were attracted by a dilapidated palace and a well-preserved church of St Anna, whose construction dates back to the 18<sup>th</sup> century. Overnight accommodation was offered to tourists in the city of Głębokie, where there were two hotels ("Warsaw" and "Commercial"), casinos, cafes and restaurants, as well as numerous monuments of sacred architecture.

Tourists travelling from the city of Lida by rail through the town of Mołodeczno and the town of Królewsczyzna to Zahacie (the Polish border station, the next station Wietryno was already on the Soviet territory) could visit the town of Budzław, already known at that time as a center of cultural and religious tourism and Catholic pilgrimages.<sup>37</sup>

Another tourist destination in the direction of the Soviet border, which was recommended to travellers in the Wilno Voivodeship by the authors of tourist guides published in the 1920s and 1930s, was the railway line from Wilno towards Minsk to the station of Olechnowicze, where tourists were offered to explore the villages of Kiena Panieńska and Gudogaje, the town of Smorgonie, the estate of Zalesie and their surroundings. The developers of the route offered tourists a visit to the palace and park complex in the Szumsk estate, castle ruins in Miedniki Królewskie, 18<sup>th</sup> century churches Kiena Panieńska and Ostrowiec, etc.

Tourists could get overnight accommodation in the city of Smorgonie, where there were hotels "Bristol" and "Europe", cafes and restaurants, as well as architectural monuments interesting for tourists to see. However, the main tourist attraction of this route was the Zalesie estate of Michał Kleofas Ogiński located there, which included a palace and park complex from which only an outbuilding, a greenhouse, a chapel and park alleys with two commemorative boulders were available to tourists at that time. Despite this, the flow of tourists to the Zalesie estate only increased throughout the interwar period.

The automobile tourist route from Wilno to Wołożyn via Oszmiana and Holszany was also popular. Good bus connections on this route then gave tourists an opportunity to do without their own car. A trip along this route from Wilno could last either one day only to Oszmiana or 2 or more days at the request of tourists who could freely return back to Wilno from any point on the route. If there was time, tourists could visit not only these settlements, but also nearby attractions, for example, the ruins of a medieval castle in Krewo or Naliboki forest.

In the warm season, a trip to the lakes of the Naroch group along the Wilno – Kobylnik – Miadzioł route was especially popular among the residents of

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<sup>37</sup> Zonal State Archive in Mołodeczno. Collection 9 "Mołodeczno District Commandant's Office of the State Police". Inventory 1. Case 6.

Wilno and guests to the region. The highway to this area was paved throughout its entire length from Wilno, buses to Miadzioł and even to the recreation center on the very shore of Lake Narocz ran along the road up to several times a day. The bus ride from Wilno usually took about 6 hours. In 1937, a narrow-gauge railway station was opened in the resort village of Narocz, providing a direct connection with Wilno via Łyntupy, and giving a new impetus to the development of tourism in the Narocz region.

The easternmost tourist route in whole interwar Poland was the route from the town of Głębokie to the town of Dzisna. The route was overland (could be covered either by car or on foot) with the length of about 75 km, but the road was not paved for 75% of its length. Tourists on this route visited, among other things, the villages of Łuzki and Hermanowicze, where they could see a church and a Piarist monastery from 1756, and the Late Baroque Church of the Transfiguration of the Lord from 1787.

## **Conclusion**

By joint efforts of state bodies, public organizations and associations on the territory of the Wilno Voivodeship, about a hundred tourist routes were developed, officially approved and operated by the end of the 1930s. A great contribution to the development of tourist routes was made by the Eastern Lands Development Society and the Polish Sightseeing Society. The specifics of the transport network of the region, as well as the presence of a large number of rivers and lakes in it, the increasing popularity of water sports (kayaking, yachting) determined the nature of the tourist routes of the region, a significant part of which was designed for waterway transport. Overland tourist routes, most of which were pedestrian, were built taking into account train and bus timetables, which provided tourists with transportation to the main objects of historical and cultural heritage of the region. At that time, several conditional tourist sub-regions and centers of tourism development in the region were formed in the Wilno Voivodeship: the city of Wilno itself, the surroundings of the city of Wilno, as well as Brasław, Narocz, Troki and their surroundings (which were then called the Wilno Lake District), each of them offering a specific tourist product due to the set of tourist resources available on their territory, cultural and natural heritage.



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## History of the Czechoslovak Tourist Society until 1938

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## Historia Czechosłowackiego Towarzystwa Turystycznego do 1938 roku

### Streszczenie

Niniejszy artykuł dotyczy historii drugiej co do wielkości organizacji turystycznej międzywojennej Czechosłowacji. W przeciwieństwie do innych organizacji turystycznych tego okresu, Czechosłowackie Towarzystwo Turystyczne zostało założone stosunkowo późno, bo w 1925 roku. Jego członkowie składali się głównie z przedstawicieli klasy średniej i niższej. W związku z tym jego głównym celem było oferowanie mniej zamożnym obywatelom niedrogich wycieczek grupowych, zwiedzania pięknej przyrody Czechosłowacji lub pobytów rekreacyjnych w uzdrowiskach przy minimalnych składkach członkowskich. Poprzez te działania Czechosłowackie Towarzystwo Turystyczne starało się przyczynić do poprawy zdrowia robotników, uważając, że sprawność fizyczna i psychiczna robotników jest niezbędnym warunkiem pomyślności gospodarczej państwa i zdolności narodu do samoobrony. Drugorzędnymi celami było oznakowanie szlaków turystycznych oraz utworzenie pewnej liczby punktów wsparcia, które umożliwiłyby Czechosłowackiemu Towarzystwu Turystycznemu rozwój działalności rekreacyjnej lub szkoleniowej. Choć było drugą co do wielkości organizacją turystyczną w międzywojennej Czechosłowacji, liczba jego członków była stosunkowo niewielka w porównaniu z dominującym Klubem Czechosłowackich Turystów. Pod

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koniec lat 30. tematem powracającym w turystyce czechosłowackiej było utworzenie jednolitej organizacji turystycznej, niemniej jednak Czechosłowackie Towarzystwo Turystyczne nie zgodziło się z proponowaną strukturą i dlatego nalegało na swoją, przynajmniej tymczasową, niezależność.

**Słowa kluczowe:** Czechosłowackie Towarzystwo Turystyczne, międzywojenna Czechosłowacja, turystyka, oznakowanie szlaków, rekreacja, urzędnicy.

## Abstract

The present paper examines the history of the second largest tourist organisation of interwar Czechoslovakia. Unlike other tourist organisations of the period, the Czechoslovak Tourist Society was founded relatively late, in 1925. Its membership was composed mainly of members of the middle and lower walks of life of the nation. Consequently, its primary objective was to offer the less well-off classes of the nation inexpensive group tours, visits to the natural beauties of Czechoslovakia or recreation stays in spas, while paying minimum membership fees. Through these activities, the Czechoslovak Tourist Society sought to contribute to the improvement of health of working people, believing that the physical and mental fitness of working people constituted a necessary prerequisite for the economic prosperity of the State and the nation's ability to defend itself. The secondary objectives were to mark hiking trails or to build a small number of footholds that would enable the Czechoslovak Tourist Society to develop its recreation or training activities. Despite being the second largest tourist organisation in interwar Czechoslovakia, the Czechoslovak Tourist Society membership was relatively small compared to the dominant Club of Czechoslovak Tourists. At the end of the 1930s, the theme echoing in the Czechoslovak tourism consisted in the formation of a unified tourist organisation; nonetheless, the Czechoslovak Tourist Society disagreed to its proposed structure and therefore insisted on its, at least temporary, independence.

**Keywords:** the Czechoslovak Tourist Society, interwar Czechoslovakia, tourism, trail marking, recreation, officials.

## Introduction

Joint trips of members of Sokol units, organised as early as the 1860s, are considered the beginnings of Czech organised tourism. The first purely tourist association in the Czech land – “Radhošť Mountainous Association” [Pohorská jednota Radhošť] – was founded in 1884. The name is self-explanatory: activities of the Association took place mainly in the region of Beskydy. Its formation was soon followed by other tourist organisations, of which the Club of Czech Tourists [Klub českých turistů], founded in 1888, was the largest and most important. The Club was active before the First World War in almost the entire area of the Czech lands. Before the outbreak of the First World War, also the Tourist Union of Workers [Svazdělnických turistů] was formed as a tourist branch of the Workers' Academy and brought together tourists from among workers. Tourist activities thrived also in the region of Bohemian-Moravian Highlands, where the Winter Sports Association [Spolek pro zimní sporty] in Jihlava was active. Obviously,

tourist activities of these organisations were stifled by the First World War to a considerable extent.<sup>1</sup>

After the First World War, the development of tourism in the newly established Czechoslovakia was renewed, and the new Club of Czechoslovak Tourists [Klub československých turistů – KČsT] gradually expanded its activities to the whole area. After the collapse of their association, those tourists in the region of Bohemian-Moravian Highlands who were concentrated around the chalet built in the immediate vicinity of the Čeřínek hill, resolved to form the Čeřínek Tourist Club [Turistický klub Čeřínek]. In addition, the Tourist Association of Moravian Karst [Turistická jednota Moravský Kras] was founded in Jedovnice. Needless to say, in both cases, the importance of these organisations was of a predominantly local character.

It was only in the mid-1920s that a new tourist organisation was formed in the territory of Czechoslovakia and gradually became the second most important tourist organisation in terms of membership, preceded only by the Czechoslovak Tourist Club. Its members, who named it the Czechoslovak Tourist Society [Československá obec turistická – ČsOT], generally did not rank among the wealthy strata of the nation, but still they managed to develop their organization into a distinctive and important association for Czechoslovak tourism in the interwar period.<sup>2</sup>

## Formation of the ČsOT

The second largest tourist organisation active in interwar Czechoslovakia was formed relatively late, in Pilsen on 25 November 1925,<sup>3</sup> when some tourists separated from the then Tourist Union of Workers. At the time of its foundation, the organisation was composed of around 700 members. Prague followed suit, when a movement similar to that in Pilsen was established there.

Newly formed groups first approached the KČsT to inquire whether it would be possible for them to establish a workers' division modelled along the lines of the academic division, but with lower membership fees. However, the KČsT re-

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<sup>1</sup> J. Grexa, M. Strachová, *Dějiny sportu: Přehled světových a českých dějin tělesné výchovy a sportu*, Masarykova univerzita, Brno 2011, p. 152; J. Štumbauer, T. Tlustý, R. Malátová, *Vybrané kapitoly z historie tělesné výchovy, sportu a turistiky v českých zemích do roku 1918*, Jihočeská univerzita v Českých Budějovicích, České Budějovice 2015, pp. 219–220.

<sup>2</sup> National archives in Prague, Fund Československá obec turistická, Box 9, XXI/29 – Informační služba ČOT, TURISTIKA V ČESKOSLOVENSKU: Vývoj turistiky v ČSR.

<sup>3</sup> National archives in Prague, Fund Československá obec turistická, Box 1, I/44 – Korespondence s poverenictvom vnitra, Obnovenie činnosti Čs. obce turistickej na Slovensku, dne 10. června 1947.

jected the request, a fact that later contributed to the officials' decision to form a new separate tourist organisation.<sup>4</sup>

In May 1926 the above two groups elected a joint central committee, which prepared the first Statutes and proceeded to create an independent association. Until the adoption of the Statutes in June 1928, the entire organisation worked as a free association under the patronage of the Sports Section attached to the Czechoslovak National Socialist Party. The function of the central body was held until 1928 by the Tourist Department of Prague II, also called a parent department.<sup>5</sup> It was not until 28 November 1928 when a constituent general assembly was held in the rooms of the Avion Palace (now the Luxor Palace) by virtue of the Statutes approved by the Ministry of Interior. The general assembly elected Senator Václav Klofáč as its honorary mayor, and Josef Hodys as its mayor.<sup>6</sup>

The subsequent period of 1928–1930 could be named a consolidation period. As a certain milestone, the general assembly of the ČsOT was held on 16 November 1930. This event marked the beginning of the real development of the entire organisation. The aforesaid general assembly set out new organisational guidelines and imposed on the organisation's head office a number of tasks, including in particular the establishment of accounting in the divisions, production of unified reports from the divisions, etc.<sup>7</sup>

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<sup>4</sup> Prior to the official establishment of this organisation, its future members were active in the Tourist Union of Workers, formed in 1912 by MUDr. [M.D.] Schwarz. This unified tourist organisation split into three groups after the defeat of the working class in January 1920. The first group, made up by the most engaged members of the working class, merged with the Federation of Workers' Sports Unions [Federace dělnických tělocvičných jednot] (this was probably the organisation that was later called the "Tourist Union" in Prague). The second group, mainly influenced by the petty bourgeoisie, tried to arrange a merger with the KČsT. However, during the negotiations, it encountered resistance from some of its members and possibly also financial difficulties. The third group, under a strong influence of the Czechoslovak Social Democratic Workers' Party, continued to operate under the name Tourist Union of Workers of the Czechoslovak Republic [Svaz dělnických turistů Republiky československé]. The Union was active in the Czech Lands until 01 January 1939, when it merged with the KČsT. National archives in Prague, Fund Československá obec turistická, Box 2, VII/2 – Korespondence a zápisy s Ústřední radou české turistiky, O jednotu také v turistice.

<sup>5</sup> National archives in Prague, Fund Československá obec turistická, Box 1, I/14 – Korespondence s ministerstvem vnitra, K výměru čj. 27162 ai /28 k pol. řejstř. A 3800 1928, dne 3. listopadu 1928.

<sup>6</sup> National archives in Prague, Fund Československá obec turistická, Box 1, I/14 – Korespondence s ministerstvem vnitra, ČsOT Ministerstvu vnitra, dne 30. listopadu 1928.

<sup>7</sup> National archives in Prague, Fund Československá obec turistická, Box 9, XXI/30 – Zprávy o činnosti ČOT, Zpráva o činnosti Československé obce turistické za rok 1931.



## **Organisation, purpose and funding of activities of the ČsOT**

The ČsOT pursued the purpose of cultivating all kinds of tourism, attending to its development, promoting tourism and spreading awareness of the Republic's territory. For these purposes, the ČsOT sought to

- a) develop contacts with tourist organisations at home as well as abroad,
- b) organise lectures to promote and develop tourism activities,
- c) issue magazines, specialised publications, postcards, maps and to encourage specialised studies in the area of tourism,
- d) build chalets and lodges, to create and mark trails, to maintain natural and historical monuments,
- e) organise walks, excursions, tours, theatre performances, concerts and entertaining events;
- f) establish ČsOT stations,
- g) provide training to reliable tourist, skiing, climbing and youth leaders,
- h) educate tourist youth,
- i) be actively engaged in all types of sports that might increase and maintain physical fitness,
- j) carry out innkeeper's activities, activities of travel agents, ferries or printing activities to the extent permitted by law.

The administration of the ČsOT was handled by the general congress, the central committee elected there, along with the presidium of the central committee (mayor, mayor deputies, treasurer, secretary, accountant, registrar and chief), general assemblies and boards of administrative organisations, general assemblies and boards of divisions, boards of the individual branches and stewards. The ČsOT was represented by its chairperson or vice-chairpersons before state authorities and in relation to third parties.

An ordinary general congress of the ČsOT was convened by the central committee on an annual basis. An extraordinary general congress would be convened only if considered important by the central committee or if its convocation was required by at least two-thirds of the divisions. Each congress of the ČsOT was composed by divisions' delegates, members of the central committee and the supervisory committee. As non-voting guests, individual members were allowed to attend the congresses. The congress was assigned with a task to elect the mayor, mayor deputies, other members of the central committee, supervisory committee and their alternates. The other tasks of the congress included the election of an honorary mayor and honorary members, resolutions on changes of and amendments to the Statutes, approval of the Regulations, consideration of reports on activities and management, determination of the amount of membership fees, registration fees, fees for issuance of membership

cards and badges, decisions on proposals put forward by the central committee, divisions or members.

The central committee consisted of the mayor, 3 vice-mayors, 10 to 16 committee members and 5 to 8 alternates. From among their number, the secretary, treasurer, accountant, trail marker, librarian and other officials, if necessary, were elected at the constituent meeting. The central committee also addressed all matters of the association, the management of which was not entrusted to the general congress directly. Those matters included, in particular, admission and expulsion of members, establishment or dissolution of administrative organisations, installation of special professional bodies or sections (those of leaders, skiers, a technical body, etc.), management of the ČsOT property, supervision over the property of the individual administrative organisations and divisions, issuance of various regulations to supplement or interpret the Statutes or acceptance of guarantees for liabilities undertaken by the divisions. The central committee met as necessary, but at least once in three months.<sup>8</sup>

The ČsOT divided its membership, admitted by the general committee or a members' meeting upon a proposal of its committee, into founding, honorary, contributing or active members and junior members. A person who had once and for all deposited a cash amount determined by the general congress became a founding member. An honorary member was a person who was bestowed that title by the general congress or general assembly. A natural person who paid the registration fee and a fixed membership fee could become a contributing member. In turn, an individual who was admitted by the central committee or a members' meeting of the given division and fulfilled the conditions laid down by the general congress became an active member. The ČsOT classified boys and girls below 18 years of age as junior members. Each member was entitled to participate in all events organised by the ČsOT (but the voting right pertained only to active, founding and honorary members), to avail of all benefits arising from the membership, to subscribe to the Society's magazine and to wear its badge (see Figure 1).

To facilitate the performance of the above-mentioned objectives, the ČsOT formed, as necessary, divisions, administrative organisations and steward's points, whose Statutes or Rules of Procedures were approved by the general congress. With the view of improving the collaboration between the divisions and the central committee, leadership councils and sections were installed, with their own Rules of Procedure approved by the ČsOT central committee.

Needless to say, the backbone of the ČsOT organisation network was the local steward. Decisions to delegate this title was made by the ČsOT presidium.

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<sup>8</sup> National archives in Prague, Fund Československá obec turistická, Box 8, XIX/1 – Korespondence s jinými odbory ČOT, jednotlivci a.j., Stanovy ČsOT schválené výnosem ministerstva vnitřní záležitostí ze dne 25. dubna 1940, č.j. 59.293/1939-6.

Decision-making in this area was vested in the administrative organisation committee in those localities where the ČsOT administrative organisations were active. The steward's role was to find other members in their circle in order to form a local committee, to identify other stewards in the vicinity, to submit required reports to the ČsOT head office, to provide information to tourists and to assist local authorised officials in promoting their region. However, stewards were allowed to act before the local authorities with a binding effect only if they were specifically authorised to do so by the ČsOT or administrative organisation presidia.



**Figure 1.** ČsOT badge (source: National archives in Prague, Fund Československá obec turistická)

If a steward managed to recruit at least 10 members in a given location, a local ČsOT group (also known as a steward's point) could be formed. A local group constituted a free association, but without its own Statutes, and it therefore could not act independently before the state authorities. A local group pursued the task of carrying out ordinary tourist activities, while making effort to increase the number of members to ensure a change of its status to an independent committee of the ČsOT. In addition, a local group could elect its main officers who, for instance, represented it in contact with administrative organisations or the head office.

Once the number of members of a local group exceeded the threshold of 20, this was considered as a certain guarantee that the local group is capable of an "independent life". Subsequently, the head office (or a local administrative organisation, if any) transformed such a local group into an independent section, i.e. a separate legal person capable of acting and operating independently.

Where it was impossible to create a division or a steward's point in a particular place, the ČsOT intended to appoint at least a person in that particular place to give visitors to the region information about tourist attractions. The ideal to be achieved was to develop a network of ČsOT stations in regions, to be based in restaurants.<sup>9</sup>

<sup>9</sup> National archives in Prague, Fund Československá obec turistická, Box 3, XI/21 – Oběžníkyústředí ČOT, Organizačnípokyn č.2/45 – Pokyny k činnostimístníchodborů /skupin/ České obce turistické, červenec 1945.

As part of independent local divisions, “ČsOT enterprise groups” could also be established, with activities carried out in line with their own programme; nevertheless, these groups were represented before the state authorities by the local division committee.

In addition to “ordinary” tourist divisions, the ČsOT founded special interest divisions at local divisions, administrative organisations or the head office, e.g. amateur photographic, skiing, cycling, climbing, boating, philatelic divisions. Members of those divisions, however, had to pay their own membership fees, and, according to agreements between the ČsOT with the relevant professional associations, they also had rights as members of specialised sports clubs.<sup>10</sup>

The ČsOT derived funds for its activities mainly from registration fees, fees for badges, membership fees, proceeds from publications, magazines, lectures, donations or subsidies. Amounts of membership fees, determined by the general congress, did not change much (see Table 1).

**Table 1.** Amounts of the ČsOT membership fees in the period of the First Republic

	<b>Youth under 18</b>	<b>Adults over 18</b>
Membership contribution	CSK 4	CSK 12
Compulsory accident insurance	CSK 4	CSK 4
Membership card	CSK 1	CSK 1
Badge	CSK 15	CSK 15

Source: National archives in Prague, Fund Československá obec turistická, Box 3, XI/21 – Oběžníky ústředí ČOT, Pokyny k zakládání místních odborů, místních a závodních skupina důvěrnických míst ČOT.

Other funds for its activities were obtained by the ČsOT in a form of donations provided by the State Lottery Directorate or subsidies of the Ministry of Education and National Enlightenment or the Ministry of Internal Trade. The Ministry of Transport gradually enabled the ČsOT members to obtain discounts for trains or cableways to Ještěd and from Janské Lázně to Černá hora. Members were also given discounted prices e.g. for entrance to all caves or to the Teplice Rocks. In stages, a list of the ČsOT lodging houses and tourist stations was prepared. The ČsOT members also enjoyed discounted prices in selected inns. The Society informed its members of the existence and amounts of discounts in its magazine.<sup>11</sup>

<sup>10</sup> National archives in Prague, Fund Československá obec turistická, Box 3, XI/21 – Oběžníky ústředí ČOT, Pokyny k zakládání místních odborů, místních a závodních skupina důvěrnických míst ČOT.

<sup>11</sup> National archives in Prague, Fund Československá obec turistická, Box 1, III/3 – Zápisy ze schůziústředního výboru ČOT, Předlohy pro schůziústředního výboru Čs. obce turistické dne 7. října 1947.

## Activities of the ČSOT from the early 1930s to the end of the First Republic

The dawn of the 1930s saw, *inter alia*, a significant expansion of the Society's membership base (see Table 2), which already had implemented its objectives and a clear organisational structure. Edvard Beneš began to serve as its mayor.<sup>12</sup> In 1931, the members were organised in as many as 32 divisions. The ČsOT flourished most in the regions of Brno and České Budějovice, where the ČsOT activities were promoted.<sup>13</sup> Apart from this, the ČsOT was involved in trail marking, organisation of leadership courses, lectures, trips and tours. Due to its growing membership and expanding activities in its individual divisions, a request was presented at the general assembly in 1930 to set up an office where one typist would help tackle the ever-growing paperwork. However, since the ČsOT also struggled with financial difficulties at that time, the post of the typist was not filled until the autumn of 1932.<sup>14</sup>

**Table 2.** Development of the ČsOT membership base

Year	Number of members
1925	700
1930	6,000
1931	7,500
1932	6,200
1933	14,000
1934	6,400
1935	3,800
1936	6,500

Source: National archives in Prague, Fund Československá obec turistická, Box 5, XVI/12 – Korespondence s úřadyaj. o cizíediční činnosti, Československá obec turistická, Ústředíče skélidové turistiky. National archives in Prague, Fund Československá obec turistická, Box 9, XXI/30, – Zprávy o činnosti ČOT.

Similar to the KČsT, the ČsOT began to mark unknown places, e.g. in the region of Pilsen, since the latter found a place there where the KČsT had not been

<sup>12</sup> Edvard Beneš remained in this position until he was elected as President of the Republic in 1935. National archives in Prague, Fund Československá obec turistická, Box 5, XVI/2 – Korespondence s redakcemi aj. o tiskových zprávách ČOT, Turistické zpravodajství České obce turistické (ČOT), Praha II., Václavské nám., dne 14. září 1945.

<sup>13</sup> National archives in Prague, Fund Československá obec turistická, Box 9, XXI/30 – Zprávy o činnosti ČOT, Československá obec turistická – Ústředí české lidové turistiky.

<sup>14</sup> National archives in Prague, Fund Československá obec turistická, Box 5, VII/1 – Korespondence a statistiky ústředí ČOT, Ministerstvu zdravotnictví a tělesné výchovy, dne 21. října 1935.

active in this respect. The beginnings of marking in this region can be traced back to the year 1932. This and the following year, the ČsOT marked about 100km of hiking trails, without any financial aid from the State. Marks used by the ČsOT were different from the strip marking used by the KČsT, since the ČsOT marks also showed the direction in which the tourist was advised to proceed. The organisation itself believed that such marking was more modern and suitable.<sup>15</sup> Beside a number of marked trails, the number of courses organised by the ČsOT was on the increase. These included e.g. courses for map reading, outdoor orientation or Samaritan courses.

Regrettably, the period between 1933 and 1935 brought with it, for the ČsOT, a notable decline in the membership base, despite, e.g. membership discounts for trains, the organisation of cheap trips and tours<sup>16</sup> or the construction of a ČsOT chalet in Hroby. The said decline was rooted in the severe economic crises.<sup>17</sup> In 1934, the ČsOT membership base was again centred in 25 divisions only. In an attempt to reverse the decline in the membership base, the Society's presidium tried to make the organisation more attractive. By way of example, the presidium strove to arrange for the use of discounts or shelters of other organisations, such as the Radhošť Mountainous Association, which agreed to the cooperation offered.<sup>18</sup>

In the second half of the 1930s, the ČsOT head office also started to publish its own monthly magazine "Czechoslovak Tourist". The publication of the magazine was officially announced in October 1935, and the magazine began to be published the following year.<sup>19</sup> Moreover, the ČsOT division in Pilsen informed of its activities through another magazine. The magazine was named "Tourist in the Czech West" and was published six times a year.<sup>20</sup>

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<sup>15</sup> National archives in Prague, Fund Československá obec turistická, Box 9, XXI/22 – Značkování orientace, Značení turistických cest Čsl. obcí turistickou, dne 8. února 1934.

<sup>16</sup> For example, in 1934, the ČsOT organised 575 trips, of which 177 were half-day trips, 318 full-day trips, 80 multi-day trips and 30 were in form of tours taken by membership cars to the mountains. At that time, the ČsOT leased ca. 5 hectares of land, where, *inter alia*, 10 playing fields for ball games and 50 weekend houses were located. In addition to tourism and ball games, members were also active skiers. This activity was encouraged by skiing courses and trips to the mountains. National archives in Prague, Fund Československá obec turistická, Box 5, VII/1 – Korespondence a statistiky ústředí ČOT, Ministerstvu zdravotnictví a tělesné výchovy, dne 21. října 1935.

<sup>17</sup> "Zprávy Čsl. Červeného kříže" 1934, vol. 14, no. 4, p. 60; National archives in Prague, Fund Československá obec turistická, Archival tool.

<sup>18</sup> National archives in Prague, Fund Československá obec turistická, Box 2, VIII/3 – Korespondence s Pohorskou jednotou „Radhošť“, Slevy v chatách Pohorské jednoty Radhošť, pro členy organizované v Č.O.T., dne 24. 7. 1934.

<sup>19</sup> National archives in Prague, Fund Československá obec turistická, Box 5, XVI/1 – Korespondence s úřady, podniky, jednotlivci aj. o vlastním tisku ČOT, Policejní ředitelství v Praze Spolku „Československá obec turistická“, dne 5. listopadu 1935.

<sup>20</sup> National archives in Prague, Fund Československá obec turistická, Box 4, XIV/3 – Subvence ČOT, Udělení subvence na organizační činnost pro rok 1938.

In 1936, Ludvík Chlupatý was appointed mayor of the ČsOT and led the organisation until 1939.<sup>21</sup> During this period, the Society saw a general rise of its organisation, which began to follow the example of the KČsT, and started to engage in various sports disciplines, such as skiing, sledging and cycling. Various courses began to be organised in the above disciplines. The most successful skiing courses took place in the region of Pilsen, where the local division explored the beautiful area of Šumava. The number of trips increased there slowly but surely. Apart from that, the ČsOT embarked on erecting recreation camps. Until 1938, as many as four camps were constructed at a cost of CSK 200,000.<sup>22</sup> At that time, the Pilsen division also marked 220km of various hiking trails in the area of Český les.

A specific feature of that tourist organisation was the engagement in various “defence” sports, such as walking races<sup>23</sup> or races of three-member patrols. Furthermore, the leadership board of the ČsOT prepared the so-called “tourist meetings”. Those meetings were organised twice or thrice a year as a special form of promotional activities. The purpose of those meetings was, among other things, to inform members of tourism tasks in relation to defence and recreation.<sup>24</sup>

The upswing of activities of the ČsOT in that period was also reflected in the new Statutes, which were approved, subject to various comments, by the Ministry of Interior in 1937. Pursuant to the Statutes, the ČsOT was managed by the general assembly. The general assembly elected the central committee, composed of the mayor, with a three-year tenure, and three vice-mayors. The vice-mayors were elected for the same term, under the condition that two of them had to live in Greater Prague.<sup>25</sup> The central committee also consisted of nine members of the committee and three accounting supervisors. The role of the advisory body to the committee was served by the central leadership board,

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<sup>21</sup> National archives in Prague, Fund Československá obec turistická, Box 1, I/10 – Korespondence s ministerstvem sociální péče, ČsOT Ministerstvu sociální péče a ochrany, dne 17. 4. 1947.

<sup>22</sup> Since the membership fees of the ČsOT were not high, the ČsOT sought to obtain financial support for its activities also from state authorities. For instance, the Society applied to the Provincial Office in Prague, Ministry of Education and National Enlightenment or the Metropolitan Authority of the Capital City of Prague.

<sup>23</sup> For instance, on 28 October 1933, the ČsOT division in České Budějovice organised a walking competition České Budějovice – Včelná and back, which was open to all competitors irrespective of their club affiliation and to other persons not organised in any clubs. “Hlas lidu” 1933, vol. 28, no. 20, p. 3.

<sup>24</sup> National archives in Prague, Fund Československá obec turistická, Archival tool.

<sup>25</sup> “Greater Prague” was formed on 01 January 1922 by virtue of Act No. 114/1920 Coll. of Regulations and Acts, by annexing 37 villages and settlements to Prague. Following its formation, Greater Prague was inhabited by 676,000 citizens, who lived in the area of 17,164 hectares (171.64 km<sup>2</sup>).

which carried out technical work, prepared trips or published brochures. However, for various work, helpers from among the other members were called and then formed special boards (e.g. trail marking, philatelic, national history boards, etc.), which submitted proposals to the committee, whose role was to decide on such proposals. In addition to a regular mayor, honorary mayors were elected by the central committee.<sup>26</sup> The committee also convened the annual general assembly, which made resolutions e.g. on amendments to the Statutes, expulsion of members or the entire branches. Delegates were sent to the general assembly according to the following procedure: Each division with fewer than 100 members sent one delegate, or two in the case the number of members exceed 100. The number of members was determined according to the membership fees paid.<sup>27</sup>

The ČsOT might have dealt with another amendment to the Statutes not long afterwards, since at the end of 1938, a proposal from KČsT for the Society to join the Club was presented to the ČsOT. The two organisations originally agreed that they would jointly prepare new Statutes for a “new tourist organisation”. However, no agreement was reached in 1938, as the ČsOT eventually refused the merger, arguing that the KČsT only offered the ČsOT to join the Club, where its membership would be able to create its own divisions at most. The establishment of those divisions was moreover conditional on a large number of members.<sup>28</sup> Contrariwise, the ČsOT pursued the formation of a new federative organisation, for which the associations united within it were to draw up brand new Statutes. Accordingly, even at the beginning of the subsequent period, during which a wide range of physical education, sports and tourist associations were gradually forced to restrict or discontinue their activities, the ČsOT remained independent.

## Conclusion

Several tourist organisations were active in the Czech Lands before the Second World War. Needless to say, those organisations differed in many ways and pursued various goals. At that time, even an answer to the question whether tourism was a movement with a predominately recreational or sports focus<sup>29</sup>

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<sup>26</sup> Until 1935 Tomáš Garrigue Masaryk was an honorary mayor of the ČsOT, while Edvard Beneš held that position from 1935 to 1938.

<sup>27</sup> National archives in Prague, Fund Československá obec turistická, Archival tool.

<sup>28</sup> National archives in Prague, Fund Československá obec turistická, Box 9, XX/16 – Spolupráce ČOT ve slučování s jinými turist. organizacemi, klub čs. turistů, dne 15. prosince 1938.

<sup>29</sup> It was quite obvious, though, that tourism and sports were linked closely. Tourists reached their destination in various ways, which were always connected with physical exercise. Hence,



could not be agreed by Czechoslovak tourist organisations.<sup>30</sup> As a matter of fact, there existed no precise definition of the term “tourism” and its real mission. Tourism could be addressed from different perspectives and its meaning could be inferred from such definitions. Importantly, it is quite possible that there is more than one side to the truth. The main activities of Czechoslovak tourist organisations were supplemented by other activities, more or less related to tourism *per se*. This is the most probable reason why efforts to merge these associations into a unified tourist organisation were fruitless.<sup>31</sup>

The ČsOT was composed mostly of workers or “minor employees”, i.e. rather of members of the middle and lower classes of the nation. The objective set by the ČsOT was centred around the efforts to preserve the health of the working people, whose physical and mental fitness was, as the ČsOT believed, an essential prerequisite for the economic prosperity of the state and defence abilities of the nation. The ČsOT tried to distinguish between tourism as a sports discipline and tourism as an economic factor. The Society was mainly concerned with the practical development of all kinds of tourism and the promotion of facilities that served tourism. Importantly, the Society did not disregard the natural history and educational aspects of tourism. The Society tried to achieve its objectives through the organisation of walks, trips, recreational and national his-

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tourism could be divided into, e.g. walking, cycling, skiing, water tourism, etc. The ČsOT was well aware of this, believing that tourism was also of an unquestionable importance for the nation's ability to defend itself. In this respect, the ČsOT emphasized especially skiing tourism, climbing the mountains, overcoming natural obstacles, walking endurance or orientation in the terrain. National archives in Prague, Fund Československá obec turistická, Box 1, III/1 – Pamětní spisy a návrhy ČOT, Prof. Otto Bureš Dr. Zdeňku Nejedlému, dne 4. 12. 1945.

<sup>30</sup> The concept of tourism considered, the Club of Czechoslovak Tourists emphasized its economic value and importance for the State. Accordingly, the Club opined that tourism should fall under the sphere of interest of the Ministry of Internal Trade. On the contrary, the Radhošť Mountainous Association perceived tourism as a sports and recreational movement, to which a considerable natural history importance was added. The Tourist Association of Moravian Karst put emphasis on the economic importance of tourism, a fact logical from the Association's perspective, since the impetus for its establishment was the promotion of the Moravian Karst and the prosperity of its immediate vicinity. The Čeřínek Tourist Club was formed in Jihlava at the time when the town was strongly Germanised. It had a patriotic and national character. Since its establishment, the ČsOT understood tourism as a sports movement serving the role of physical and mental recreation of workers, deepening their interest in exploring their motherland. The ČsOT fostered cooperation with sports organisations and supported the classification of tourism as a basic and general sports discipline, locating it in an interest sphere of the Ministry of Education and National Enlightenment. National archives in Prague, Fund Československá obec turistická, Box 1, III/1 – Pamětní spisy a návrhy ČOT, ČsOT Předsednictvu vlády Republiky československé, dne 23. prosince 1945.

<sup>31</sup> National archives in Prague, Fund Československá obec turistická, Box 1, III/1 – Pamětní spisy a návrhy ČOT, Prof. Otto Bureš, Starosta České Obce Turistické, Má česká turistika význam rekreační, tělovýchovný nebo obchodní?.

tory tours, the establishment of recreational resorts and engagement in various sports. A number of agreements with sports unions enabled the ČsTO members to participate in official sports competitions.

The ČsOT always strove to prepare tourist trips as such in detail in advance. Generally, a trip was associated with e.g. a commentary on the sights to be visited. In addition, its tourist activities enjoyed a certain social importance since the organisation brought together members of different social classes. The Society's practical programmes included various games, physical exercise and sports (athletics, rowing, ball games, etc.). As for its complementary activities, its members were engaged in tourist trail marking,<sup>32</sup> which began in 1929, or in creating tourist trails.

Equally important was the creation of certain footholds. In remote locations (e.g. in the mountains), tourist shelters or chalets were constructed. However, the network of these shelters or chalets began to be built mainly by the Club of Czech Tourists, later followed by e.g. private entrepreneurs. On the other hand, the ČsOT argued that tourist organisations should settle for the development of a few centres to enable them to improve their recreation or training activities. Moreover, the ČsOT recommended that the operations be limited to promotional and advisory activities. The ČsOT intended to leave the actual construction of tourist chalets to private or state enterprises.

Unlike the KČsT and Radhošť Mountainous Association, the ČsOT did not seek to construct facilities that would promote tourism, but its objectives rather consisted in efforts to enable the less well-off classes of the nation to participate in cheap group tours, visits to the natural beauties of Czechoslovakia, or recreational stays in spas, while paying minimum contributions. The ČsOT therefore primarily promoted hiking.<sup>33</sup>

The year 1938 saw the beginning of intensive negotiations on the merger of Czechoslovak tourism into a unified organisation. Still, those attempts encountered disagreements, which led to reluctant responses by most Czechoslovak tourist organisations, including the ČsOT. Probably, "Tourist Union" [Turistická jednota] in Prague was the only tourist association to discontinue its activities at that time. The Union was merged into the Proletarian Sports Federation [Federace proletářskětělovýchovy] and was then dissolved together with that organisation in 1938. The other tourist associations of interwar Czechoslovakia, however, continued to operate as independent organisations, at least for the time being.

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<sup>32</sup> The ČsOT did not find sympathy for trail marking with the KČsT, which complained loudly of the new mark appearing on hiking trails, and also the fact that the trails newly marked by the ČsOT would very often cross those of the KČsT.

<sup>33</sup> P. Bureš, J. Plichta, *Sport a tělesná kultura v Čsl. republice a cizině*, Almanach sportu, Prague 1931, pp. 343–353.

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## **CZĘŚĆ II**

# TEORIA I METODYKA WYCHOWANIA FIZYCZNEGO I SPORTU





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## The Effect of the Quadriceps Muscle Fatigue After an ISOTONIC Contraction on Some Kinematic Variables and the Accuracy of Soccer Players' Performance of the Corner Kick

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### Wpływ zmęczenia mięśnia czworogłowego uda po skurczu izotonicznym na niektóre zmienne kinematyczne i dokładność wykonania rzutów różnych przez piłkarzy

#### Streszczenie

Zmęczenie mięśni jest przyczyną niskich umiejętności piłkarzy, dlatego w tym badaniu starano się ustalić wpływ zmęczenia mięśnia czworogłowego, będącego wynikiem skurczu izotonicznego, na niektóre zmienne kinematyczne i dokładność wykonania rzutu różnego przez piłkarzy. Test dokładności rzutu różnego i ćwiczenia Leg Press przeprowadzono na próbie 8 międzynarodowych piłkarzy, a ich średnie to wiek:  $26,8 \pm 2,3$  lat, wzrost:  $174 \pm 12$  cm, masa:  $71 \pm 6$  kg, wiek treningowy:  $14,6 \pm 1,8$  roku. Wykonanie testu rzutu różnego zostało nagrane trzema kamerami i przy użyciu programu Kinovea do analizy kinematycznej. Wyniki wykazały negatywny wpływ zmęczenia mię-

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śnia czworogłowego po skurczu izotonicznym na zmienne kinematyczne i celność rzutu różnego. Wyniki badań pokazały konieczność podniesienia zdolności piłkarzy w zakresie wytrzymałości siły mięśniowej w mięśni czworogłowym w jak największym stopniu ze względu na wpływ tego elementu na umiejętność wykonania, w tym dokładność rzutu różnego.

**Słowa kluczowe:** zmęczenie mięśni, skurcz izotoniczny, rzut różny, zmienne kinematyczne, dokładność.

## Abstract

Fatigue in muscles is a reason for the low skill performance of soccer players so this study sought to find out the effect of the quadriceps muscle fatigue resulting from an isotonic contraction on some kinematic variables and the accuracy of soccer players' execution of the corner kick. A test for the accuracy of the corner kick and the leg press exercise was used on a sample of 8 international soccer players, and their means were as follows: age:  $26.8 \pm 2.3$  years, height:  $174 \pm 12$  cm, mass:  $71 \pm 6$  kg, training age:  $14.6 \pm 1.8$  years. The performance of the corner kick test was videotaped by three cameras and Kinovea program for kinematic analysis was used. The results showed a negative effect of the quadriceps muscle fatigue after isotonic contractions on kinematic variables and on the accuracy of corner kicks. The study results point to the necessity of enhancing the ability of soccer players in terms of endurance of muscle strength in the quadriceps muscle to the highest possible extent due to the importance of that element in their skillful performance, including the accuracy of the implementation of corner kicks.

**Key words:** fatigue, isotonic, corner kick, kinematic, accuracy.

## Introduction

Sports physiologists describe muscle fatigue as a sharp decrease in muscle strength resulting from performing exercises of high intensity, which reduces the efficiency of these muscles [15]. It can also be said that muscle fatigue is a decrease in the strength or accuracy of performance resulting from the lack of the muscle's ability to produce the energy needed for the muscle's work based on this performance, as this fatigue can be central in the brain and spinal cord or peripherally connected to the nerves and muscles involved in physical activity or responsible for the performance of a kinesthetic skill [16].

Where decentralized or topical fatigue leads to a change in neuromuscular compatibility and reduces the speed of nerve excitability to the working muscles, it also reduces the efficiency of the response of the working muscle to this nervous excitation [5].

Topical muscle fatigue occurs as a result of high or continuous mechanical resistance that the muscles work against, which leads to a kind of functional fatigue leading to several problems that reduce the efficiency of muscular work, the most important of which is energy metabolism within the muscle and thus reduce the contractile force of the muscle [8].



As for isotonic muscle contractions, they work to cause muscle contractions that cause a change in the length of the muscles during the succession of contractions, which leads to a change in the angle of the joint associated with these muscles, in light of the fact that the level of tension remains constant throughout the kinesthetic pathway [11].

Testing or training the muscles taking into account isotonic contractions is considered the largest operator of the working muscles and the kinesthetic units within them, as it increases muscle contractions through central and non-central contractions successively [12]. As studies have indicated, according to [17], isotonic contractions create a large muscle effort within the quadriceps femoris muscle and the biceps femoris in an appropriate manner that can be relied upon as an endurance test or exercise to develop endurance force or increase muscular strength.

It is worth noting that isotonic contractions, whether central or non-central, lead to an excitation that appears in the Magnetoencephalography (MEG) as a reflection of the nervous kinesthetic activity of the muscles under the influence of this contraction [18].

Soccer players suffer from local topical muscle fatigue the musculi extremi-tatis inferioris such as: vastus intermedius, vastus medialis, vastus lateralis, hamstring, rectus femoris and tensor fasciae latae. The study shall show to what extent it impacts the quality of the players' skillful performance, especially when performing the skills of passing or kicking balls, whether in fixed or moving positions [10].

As for the kinematic variables, they are considered an important factor in the success of passing the ball in terms of controlling the speed of the foot and thus controlling the speed of the ball and its direction, as the pelvic and knee angles work through the angular velocities of these joints to form a circumferential velocity of the kicking foot that moves to the ball. Thus, such variables cannot be ignored, especially when studying the accuracy of kicking the ball in a soccer game [2].

As for the corner kick skill, it is of great importance for match results. This fixed offensive position (fixed kick) contributes to determining 76% of match results. The corner kick is a mechanically closed skill that is subject to the complete control of the kicker, which means that the accuracy of his performance depends on internal factors. An accurate corner kick leads to a sound offensive position that increases the chances of scoring a goal [9].

What increases the importance of the accuracy of executing the corner kick is the fact that if it is executed incorrectly, the damage may not consist in the loss of an opportunity to score a goal, but may mean an opportunity to create a counter-attack for the opposing team, as a result of which the team that missed the corner kick may receive a goal [4].

Despite the foregoing importance of executing the corner kick, there are very few studies dealing with it from the mechanical point of view and the fatigue variable, as confirmed by (1), although this skill contributes to scoring goals for teams by 40%, as confirms [9].

Hence the importance of the current study, which sought to determine the effect of muscle fatigue in the quadriceps on some kinematic variables and the accuracy of executing the corner kick in the swinging style against the goal, which is the most frequently executed one among soccer players, as indicated by [14].

The Leg Press exercise was chosen as a safe exercise, especially in the case of using medium or below maximum intensity, as is the case in this study, which used an intensity of 10 RM. This exercise also works through isotonic muscle contractions, and thus it is similar to the feet muscle contractions movement of the soccer player during the match [11].

## **Study Objectives**

1. Determining the effect of lower limb muscle fatigue after an isotonic contraction on some kinematic variables and the accuracy of football players' performance of the corner kick.
2. The extent to which the kinematic variables under study related to the accuracy of the corner kick performance before and after the fatigue of the muscles of the lower extremities after an isotonic contraction.

## **Hypotheses**

1. The fatigue of the quadriceps muscle after an isotonic contraction has a negative, statistically significant effect at the significance level ( $\alpha = 0.05$ ) on some kinematic variables and the accuracy of soccer players' corner kick performance.
2. There is a statistically significant correlation between the significance level ( $\alpha = 0.05$ ) of the kinematic variables under study and an accurately performed corner kick before and after the quadriceps muscle fatigue after an isotonic contraction.

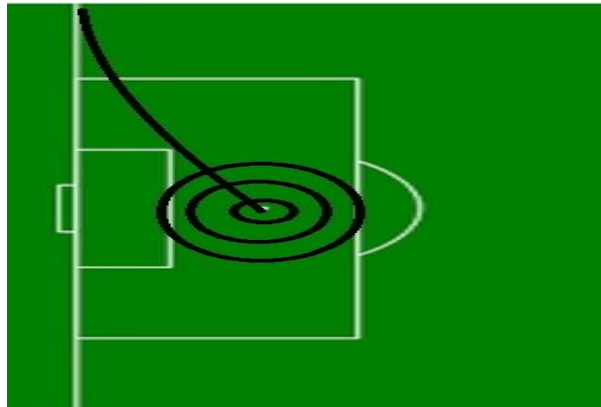
## **Method and Procedures**

This study was conducted with the use of the test and re-test method on a sample of 8 international soccer players who are specialists in the corner kick.

Their means were as follows: age:  $26.8 \pm 2.3$  years, height:  $174 \pm 12$  cm, mass:  $71 \pm 6$  kg, training age:  $14.6 \pm 1.8$  years, and they were fully aware of the study procedures. The corner kick accuracy test was applied to them, then they were subjected to an isotonic contraction experienced in the quadriceps muscle, followed by the corner kick accuracy re-test, where the performance of the corner kick was filmed.

### Corner Kick Test

1. After a warm up, the players were asked to perform a corner kick in the opposite direction of the goal swing. They had 5 attempts at their disposal.
2. The test area consisted of 3 circles inside each other. The penalty point is the central circle.
3. The area of the circles was as follows:
  - A small circle has a radius of 1.5 m.
  - A middle circle has a radius of 3 m.
  - A large circle has a radius of 4.5 m.
  - The ball that falls into the small circle has 3 points, the medium one has two points, and the largest one gets one point. The circumference of each circle is considered subordinate to it in terms of points.
  - The ball that does not touch the circles has no points.

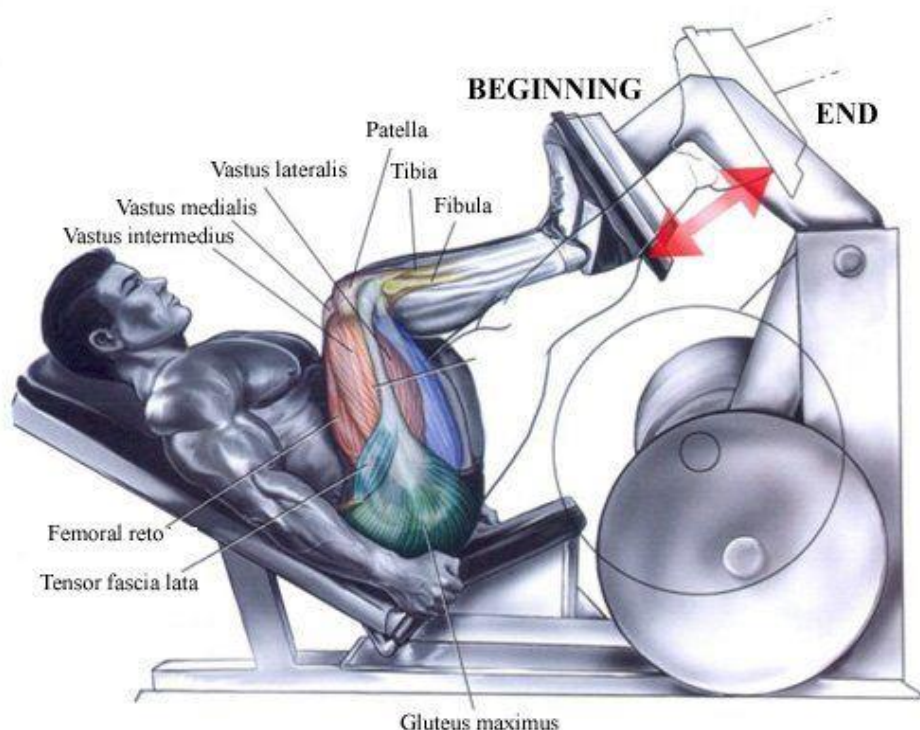


**Figure 1.** The corner kick test area

### Isotonic contraction

A test was applied to ensure that the players experience the quadriceps fatigue as a result of an isotonic contraction. It is safe and sound to conduct this

type of test [17] on all the players, after some warm-up, applying the leg press exercise of ten repetitions, with a performance intensity of 10 RM. The amount of 1 RM for each player had been checked beforehand in their recent data, which is periodically collected in their clubs.



**Figure 2.** The Leg Press exercise used to reach fatigue [15]

## Procedures

1. The first camera was placed on the right side axis to the player performing the corner kick to test the accuracy of the corner kick, at a distance of 4.15 m and a height of 0.96 m.
2. The second camera was placed next to the first one, as it moved away from it at a distance of 4.5 m, and a height of 1.26 m.
3. The third camera was placed in the middle of the goal line, directed towards the test circles.
4. The cameras were Canon EOS 80 D – speed of 500 images/second.
5. The images were analyzed using Kinovea 0.9.5 software.
6. Stalker Sport 2 Radar.

## Results

### H01 results

**Table 1.** The Wilcoxon test estimating the significance of the effect of quadriceps fatigue after an isotonic contraction on some kinematic variables and the accuracy (n = 8)

Kinematic Variables	Before Fatigue		After Fatigue		Difference Test	
	Mean	SD	Mean	SD	Z	Significance Level
Knee Extension	156.18	1.61	128.70	11.59	-2.521	0.012
Hip flexion	265.60	2.86	228.20	20.64	-2.521	0.012
Ball Angle	25.18	1.82	16.98	1.61	-2.533	0.011
Max. Ball Height	3.16	0.03	2.06	0.24	-2.521	0.012
Ball Speed	21.78	2.01	15.90	1.68	-2.524	0.012
Ball Flight Time	2.47	0.09	1.72	0.15	-2.521	0.012
Knee Angular Velocity	1281.60	2.70	861.80	78.54	-2.521	0.012
Accuracy of 15	13.63	0.92	7.38	0.92	-2.565	0.010

The results of the Wilcoxon test explain the significance effect of quadriceps fatigue after an isotonic contraction on some kinematic variables and the accuracy of the corner kick. By reviewing the Z-test significance level values calculated between the two measurements before and after fatigue for the knee extension variable, it was found out that it reached the value of 0.012. The average difference in the order of the knee extension variable before and after muscle fatigue of the lower extremities reached the value of 0.012. The value of the significance level of the average difference in the ranks of the ball launch angle variable was 0.012. It was also reached for the variable of the maximum ball height (0.012). It amounted to 0.012 for the ball velocity variable as well. Likewise, it reached the value of 0.012 for the ball flight time variable. The value of the knee angular velocity variable was 0.012. As for the accuracy variable, the value of the significance level of the difference between the average ranks of this variable was 0.010.

As for the accuracy result, it turns out that it was affected by muscle fatigue, as its value decreased, i.e. the value of the mean became 7.38 degrees in comparison to 13.63 degrees when free of muscle fatigue.

While comparing the above values of the significance level with the value of 0.05, it becomes clear that the calculated values were the lowest, which means that there are statistically significant differences in the kinematic variables before and after muscle fatigue.

## H02 results

**Table 2.** The relationship of kinematic variables to corner kick accuracy before and after quadriceps muscle fatigue (n = 8)

Relationship Direction	Before Fatigue		After Fatigue	
	Relationship Value	Significance Level	Relationship Value	Significance Level
Knee Extension Accuracy	0.045	0.045	-0.295	0.477
Hip flexion Accuracy	0.472	0.047	-0.485	0.223
Ball Angle Accuracy	0.289	0.047	-0.211	0.66
Max. Ball Height Accuracy	0.533	0.040	0.204	0.627
Ball Speed Accuracy	0.173	0.041	-0.103	0.809
Ball Flight Time Accuracy	0.514	0.043	-0.077	0.856
Knee Angular Velocity Accuracy	0.089	0.044	0.281	0.500

The results from the table review the values of the relationships between the kinematic variables and the corner kick in soccer before and after the quadriceps muscle fatigue. We can note that all the values of these relationships investigated between the kinematic variables and the accuracy of the corner kick before muscle fatigue were statistically significant because the significance level values were less than 0.05.

Regarding the values of the relationships between the kinematic variables and the accuracy of the corner kick in soccer after muscle fatigue, they were negative (reverse), and all the values of the significance level of these relationships calculated between the kinematic variables and the accuracy of the corner kick were not statistically significant because the values of the significance level were greater than (0.05).

## Discussion

The H01 results show us that the kinematic values before fatigue differed from those after fatigue, which resulted in a decrease in the performance accuracy value from 13.63 to 7.38. Furthermore, the kinematic variables addressed in the study are reflected as an integrated model on the final skill output (kinematic foot), which here is the accuracy of executing the corner kick, and this is something that is considered logical, so changing the values of the kinematic variables resulted in a difference in accuracy.

The numerical values demonstrate that the knee extension decreased from 156.18 degrees to 128.70. That means that the skillful performance lost its kinetic dynamics on an angular path of 27.48 degrees as one of the most im-

portant variables related to the amount of torque is the angle between the center of force (the muscles of the leg front) and the length (of the leg) [7]. We also notice a decrease in the angular velocity of the knee from 1281.60 degrees per second to 861.80, i.e. the time of knee extension became longer and this change in the angular velocity resulted in a decrease in the speed of the foot and thus a decrease in the speed of the ball, namely from 21.78 m/s to 15.90 m/s. Thus, this led to a decrease in the ball's arc and its flight time, and the ball did not reach the most accurate place according to the study's test, as physically the ball in the corner kick is considered a projectile subject to the laws of ballistics. The decrease in the exit angle of the ball with the decrease in its speed reduces the maximum height that the ball can reach. Therefore, here we find a decrease in the maximum height of the ball, which was 3.16 m before fatigue and decreased to 2.06 m after fatigue. According to [13], every skill performance has appropriate values. The height of the ball in kicks or passes may not need to reach the maximum height, but it must fit the nature of the skill and the goal skill serves to deliver the ball to the test area.

As for the H02 results, we found out that the kinematic variables persisted in their relationship with the accuracy of executing the corner kick before the occurrence of musculi extremitatis inferioris fatigue, but after fatigue this relationship disappeared, and this result agrees with the result of the first hypothesis where the interruption of the relationship or its change between the skill and its kinematic variables related to its performance means a skill defect [3].

The corner kick is performed by the player resting on one foot with a lateral rotation of the pivot foot from the level of the pelvis, accompanied by moving the kicking foot from the back to the front in an angular path to the medial side, which is controlled by the thigh of the kicking foot with a bend in the knee joint that turns with the start of the kinesthetic path to an extension. The whole process is based on muscular work and is reflected in the kinematic variables that describe this movement physically, such as angles and angular velocities, and here fatigue in the driving force of this skill, i.e. the muscles, led to a defect in the performance system as a whole. The change in the kinematic performance variables reflected a drop in performance accuracy whose final mechanical goal is the corner kick played high and deep inside the penalty area.

## **Conclusion**

The negative impact of the fatigue of the quadriceps muscle after an isotonic contraction on the players' performance means a decrease in the players' ability constituting an important physical component for soccer players, i.e. the endurance of force in the muscles of the lower extremity. This means that the repeti-

tion of the players' muscular performance at a level below its maximum intensity leads to a decrease in the quality of their technical performance, especially with regards to such an important skill like executing the corner kick, which requires accuracy, especially when the penalty area is crowded with defensive players. It is valid to improve the ability of soccer players in terms muscle strength endurance in the quadriceps muscle to the highest possible extent and to continue the endurance and strength training of the quadriceps muscle throughout the season, both during the preparatory and the competition period.

This can be achieved through the development of training programs for muscular strength endurance so that the training load is formed in them in terms of training intensity and training volume in a way that improves the ability of the neuromuscular system to repeat muscular contractions without reaching fatigue affecting young players', young people' and even adults' performance.

It should also be noted that tests measuring the quality of the skill performance of players under different conditions such as fatigue or low mental focus should take into account their mechanical performance variables. The importance of these studies lies in giving the technical managers and team coaches valid information on the players' physical and mental condition before they enter the competition zone.

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#### STATEMENT OF ETHICS

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the *Medical Scientific Research Ethics Committee, Mutah University, (7 MARCH 2022, ALKARAK, JORDAN)*. All participants provided written informed consent to participate in this study

#### DECLARATION OF CONFLICTING INTERESTS

The author declared no potential conflicts of interests with respect to the research, authorship, and/or publication of the article *The Effect of the Quadriceps Muscle Fatigue After an ISOTONIC Contraction on Some Kinematic Variables and the Accuracy of Soccer Players' Performance of the Corner Kick*.

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## Volunteer Fire Brigade (OSP) Firefighting Sports Competitions in the Context of Key Problems of Contemporary Rural Poland

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### Zawody sportowo-pożarnicze Ochotniczych Straży Pożarnych w kontekście węzłowych problemów współczesnej polskiej wsi

#### Streszczenie

Ochotnicze Straże Pożarne to najliczniejsza i najbardziej rozpowszechniona kategoria wiejskich organizacji pozarządowych. Ratowniczy cel działalności sprzyja podejmowaniu przez OSP inicjatyw w obszarze sportu, tzn. ukierunkowanych na podnoszenie sprawności fizycznej i umiejętności technicznych strażaków ochotników. Podstawową formą sportowej rywalizacji strażaków są zawody sportowo-pożarnicze. Stanowią one – przez wieloletnią i regularną ich organizację, zespołowy charakter, obudowanie zbiorem ścisłych reguł i rytuałów, a także fakt rywalizacji drużyn reprezentujących sąsiadujące względem siebie społeczności lokalne – społeczny i kulturowy fenomen ogniskujący problemy współczesnej polskiej wsi. Autor, opierając się na badaniach terenowych realizowanych tuż przed czasem pandemii COVID-19 oraz przeglądzie literatury, podejmuje próbę odpowiedzi na pytanie o funkcje zawodów sportowo-pożarniczych w układzie lokalnym. Zważywszy na skalę występowania OSP, a także fakt trwałego zakorzenienia tej instytucji na pol-

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skiej wsi, artykuł może stanowić głos w dyskusji nad efektywnymi sposobami promocji kultury fizycznej poza ośrodkami miejskimi.

**Słowa kluczowe:** sport, wieś, Ochotnicze Straże Pożarne, zawody sportowo-pożarnicze.

## Abstract

Volunteer Fire Brigades (OSPs) are the most numerous and widespread category of rural non-governmental organisations in Poland. The emergency rescue focus of their activity is conducive to undertaking initiatives in the field of sports, i.e. projects aiming to improve the physical fitness and technical skills of volunteer firefighters. Firefighting sports competitions are the main form of sports rivalry among firefighters. Due to the fact of their long-time and regular organisation, team character, complying with a set of strict rules and rituals, and also the fact that this is rivalry between teams representing local communities that neighbour one another, they are a social and cultural phenomenon in which the problems of today's rural Poland come into focus. Based on field research completed just before the COVID-19 pandemic and an overview of the literature, the author sets out to identify the functions of firefighting sports competitions in local systems. Considering the scale of the OSP organisation and the fact that it is permanently rooted in rural Poland, the paper may be considered a contribution to the discussion on effective ways of promoting physical culture outside urban centres.

**Keywords:** sport, rural areas, Volunteer Fire Brigades, firefighting sports competitions.

## Introduction

Sport in rural areas remains a niche issue in Polish sociology. This is something of a paradox, given that analyses of the development of sporting activities in rural Poland undergoing modernisation have an important place in the origins of sociology of sport as a subdiscipline of knowledge [12, 29]. Researchers have invariably focused their attention on trends whose significance stems from the historiography of physical culture and public statistics in Poland, i.e. on Rural Sports Clubs (LZS) and on football. The LZS organisation de facto developed sporting activities in rural areas and continues to be the most numerous sports institution (in terms of the number of clubs belonging to the LZS Association) outside urban areas [15]. What is more, it is perceived as being stereotypically rural and class-rooted at the same time [13]. Then, statistical research shows that football as a sports discipline attracts the greatest number of participants within all (i.e. also rural) social environments [6]. Without negating the importance of the above findings, one might ask whether in fact an athlete living in "provincial Poland", undertaking physical activity recreationally, far from large urban centres, is necessarily always an amateur footballer who is a member of an LZS-affiliated club. It is worth pointing to more forms of popular involvement in sports, other than institutionalised contests on the football pitch, which would offer analytical potential related, for example, to wider problems

of rural communities [23]. The present paper makes an attempt to move outside the focus on football, being based on a study of the activities pursued by rural Poland's most numerous nongovernmental organisation category, namely Volunteer Fire Brigades (OSP), and their typical form of sports rivalry, i.e. firefighting sports competitions [30]. The aim of the paper is to present this type of sporting event by describing the functions that it fulfils at the macro-, meso- and microsocal level. The functions thus identified will be correlated with the problems troubling rural areas in Poland. This illustrative approach is compatible with one of the strategies of sports sociology development in Poland, calling for the applicability and interdisciplinarity of research in this area [16].

There are several reasons why a discussion on firefighting sports competitions should be placed at the border of two subdisciplines, namely rural sociology and sports sociology. First of all, OSP units are an attractive object of multifaceted analyses due to the diversity of the social contexts in which they function. This is the direct effect of the huge scale of their activity: there are more than 16,000 OSPs in Poland (being present in all of the country's rural municipalities), with a total membership exceeding 670,000 people [8]. Secondly, OSPs are unprecedentedly strongly rooted in the rural environment and show institutional continuity over different periods of history (unlike the LZS organisation, which is younger and was also more susceptible to perturbations generated by changes in the political system). Thirdly and finally, within the NGO community, OSPs are characterised by an unusual multitude of functions and statutory activities. OSP units not only serve as an emergency service in local communities but also fulfil a cultural function (running brass bands, artistic troupes, history exhibition rooms, chronicles etc.), an educational one (rescue and first-aid training courses, various classes on fire brigade premises), a charity one and, as underlined above, a sports function. Studies conducted before the COVID-19 pandemic show that 34% of OSP units listed "sport, tourism, recreation and hobbies" among the main areas of their activity. Furthermore, 86% declared their participation in firefighting sports competitions held at least once a year [1]. Thus, this is not just a journalistic curiosity, but a widespread phenomenon genuinely existing in the rural space.

## 1. Methodology

The findings presented in the paper are based on an analysis of materials gathered for a research project originally called *Activity of Volunteer Fire Departments in the context of the transformation of social ties in the Polish countryside*. The project's research goal was to explain the mechanisms enabling OSPs to overcome organisational challenges and thus maintain the continuity of their

activity and their multifunctionality in local communities affected by trends considered dysfunctional, e.g. depopulation. The sports theme was not a separate investigative direction, but it was compatible with the project's three problem areas, illustrated by the issues of cultural disharmony, weakness of the third sector, and loosened social ties. Gathering and analysing the research materials, the author sought to find out whether and how non-rescue initiatives of OSPs helped eliminate the negative consequences of the aforementioned trends.

The fundamental, empirical part of the study assumed the form of a problem-based collective case study: four entities (OSP units of similar membership size) were analysed; they were located in different parts of Poland, selected as a targeted sample (based on the level of cultural activity and professionalisation as well as the organisation's age) in order to enable a theoretical generalisation to be made. The research procedure invoked the tradition of organisational anthropology and problem-based monographs in a rural context. The project involved the triangulation of data gathering techniques, which is a strategy typical for qualitative studies of ethnographic provenance. Due to limitations caused by the COVID-19 pandemic and thus difficulties encountered with gathering data in the regions where the selected units were active, a supplementary CAWI survey was conducted as well. A total of 582 questionnaires were returned (a representative sample for the rural municipalities in which the existence of highly active OSP units had been identified earlier).

The empirical materials thus gathered describe firefighting sports competitions from the "A group", i.e. involving male teams comprising members aged over 16, with the exception of engineers, water distribution valve operators and commanders, who have to be over 18 [17]. This detailed information is important because there are also many firefighting sports competitions for youth and female teams – these forms of OSP activity were not considered (which actually suggests an intriguing direction for further investigation). It needs underlining that the research material was gathered through participation in competitions in the years 2017-2019, i.e. before the COVID-19 pandemic (the question whether and to what extent the importance of this type of sporting event has changed in the dynamically changing reality remains open, although calendars of local events in 2022 that list OSP competitions suggest that this continues to be a lively trend). Data were gathered by means of: (a) participant observation (overt and directed, carried out from the point of view of a competition spectator); (b) journalist interviews (usually single-themed, brief, with volunteer firefighters and competition spectators), and (c) the photographic method (photos obtained at the localities or from online sources). The analytical conclusions were confronted with the literature of the subject, which is very limited in terms of a problem-based approach to the development of sporting activities among volunteer firefighters. Such themes mainly appear in texts on the history of fire-

fighting in Poland, and also in special monographs devoted to a given OSP unit; no sociological text devoted strictly to this topic was found [11]. Relatively the best quality materials in the study were obtained in the urban-rural municipality of S. (Mazovian province), where the research tools were tested. These materials were incorporated into the project's main repository, the decisive reason being the most complete description of the local situation, its history and institutions (more difficult to obtain in the other cases due to the COVID-19 pandemic).

## 2. Key problems of rural Poland

Rural areas in Poland are affected by trends that might be recognised as an emanation of the globalisation process and consequences of the development path adopted after 1989. The main ones are: (a) the depopulation of peripheral rural areas; (b) back-and-forth migration in search of work and education; (c) labour market and services market deficits leading to a lower standard of living for the population; (d) diversified lifestyles (influx of new residents, de-agrarianisation of rural areas). These trends lead to issues that might be described as *key problems* (i.e. those affecting many areas of rural residents' lives and activity as well as the reality and effectiveness of rural institutions of collective life). At least three such problems may be identified. First of all, there is *cultural disharmony*, i.e. the clash of contradictory elements of social awareness: relics of the traditional peasant culture (and its institutions) and patterns typical of the modern post-industrial culture created in large conurbations or the media space [5, 27]. Rural areas do not have unified living conditions, the basic elements of the peasant system of values have undergone atrophy, one cannot speak of a group identity shared by all residents, and the COVID-19 pandemic most likely caused stronger polarisation in terms of participation in religious practices. The second trend might be described as the *weakness of the third sector*. This is manifested in dependence on public institutions (e.g. in financial or competence terms) and quite frequently a superficial character of nongovernmental organisations, which in fact pursue local government tasks and policies. Rural NGOs trying to maintain their autonomy are thus forced to compete for limited resources available in the local space, and their styles of activity are subject to increasing economisation [20]. Finally, the third key problem suggested here involves the *loosening of social ties*, the causes of this including the decreasing importance of family and neighbourhood for the fulfilment of the young generation's personal aspirations and for satisfying its representatives' needs in the professional and social sphere [7]. This problem is possible to relate to global transformations such as the weakening role of the nation state, technicisation, the growing role of

individual rights compared to duties, the pragmatism of moral attitudes and the relativisation of norms [22].

Social and cultural changes cannot but affect rural local communities. Considering the defining features of a local society cited by Marek Szczepański [25], i.e. spatial limits, long duration, relatively strong internal integration, a limited number of social actors whose daily lives involve direct relationships and who share common goals, the means to achieving those goals, and a common identity based on a symbolic universe (set of norms and values), one can identify at least two manifestations of those changes. One involves the blurring of a clear division into “one’s own” and “others” (living outside the village boundaries) and the definitive degeneration of relative autarchy (economic self-sufficiency and functional complementarity), which enabled people to satisfy their basic needs within the circle of family and neighbours (cf. [26, 10]). The other would involve the progress, with varying intensity, of disturbances in the structural cohesion that – as Arkadiusz Karwacki points out – defines the minimal number of members without which a group is unable to function and can no longer maintain group unity through frequent relations between members within the group [9].

### **3. Transformation of local communities and selected problems in volunteer fire brigades (OSPs)**

The trends outlined above directly imply organisational challenges for OSPs. These include a deficit of resources necessary for regular cultural (less often – emergency and rescue) activity, which is impossible to fill (e.g. based on membership fees, firefighters working free of charge, or income from rental of premises). The funds needed to renovate fire stations or organise events of a cultural nature, and also to purchase costly personal and specialist equipment, thus need to be sought outside the local community, mainly from public sources whose actual custodians (or key middlemen) occupy a privileged position in relation to the firefighters (relations of power). In this context, it is no wonder that municipality governments, i.e. the institution that is constitutive of local relations in Poland, are considered the main partners of volunteer fire brigades: 98% of OSP units maintain relations with the local municipality office [1]. Nor is it surprising to see the expansion of a system of centrally controlled aid: funds prescribed by government administration bodies constitute a tool in political rivalry for the firefighter voter. Another problematic situation occurs when the number of active volunteer firefighters drops (e.g. as a result of young people’s migration to cities) and the local community, due to its negligible demographic potential or the presence of other institutions of collective life that absorb young people’s enthusiasm, cannot supply new firefighters (who were originally drawn



in through relationships among family, neighbours and friends). Before the pandemic the problem of a shortage of people prepared to get engaged in OSP activity affected as much as 47% of units surveyed by the Klon/Jawor Association; this was largely due to the generational change [1]. Of course, the spectrum of repercussions of general social trends for the organisational condition of OSPs can be extended (e.g. to include the pressure of professionalisation or the tabloidisation of some of the activities pursued by volunteer firefighters), but, for the sake of clarity, the present text only considers the aforementioned two, which, in the author's opinion, are of primary importance for the future of OSPs in Poland.

#### **4. Functions of firefighting sports competitions in the local system**

Indicating the functions of firefighting sports competitions that serve to eliminate the problems outlined above in a meso-social aspect requires the use of the notion of the local system. It has a wider denotation than the local community: overstepping its framework, it encompasses the social and territorial plane as well as elements like financial-technical and institutional circumstances. In this, the local system is part of an even wider system: on the aforementioned planes, it is connected by vertical relations to systems of a higher order, and also by horizontal relations to systems at the same level [19]. Rural residents' systems of values and lifestyles also manifest themselves in local systems, and, as it is worth emphasising in the context of the present discussion, social inequalities and the "social content of exercised power" are directly revealed in them [14].

OSP firefighting sports competitions are a reflection of the systemic nature of local systems: (1) firefighter teams from different villages compete, but at the same time are subject to the control of a local government institution (the competitions are usually held at the central sports facility – the municipality's sports field); (2) the competitions cover the area of a whole municipality – attracting members of many local communities, since all the OSP units may take part; (3) the competing rivals are people who know one another (at least by sight) but do not belong to the same local community; (4) competition winners gain the opportunity to compete at the county/*powiat* level, thus becoming representatives of the local system in the supralocal space; (5) the competitions bring together, in one time and place, various institutions and social actors active in a given system (during the field study, the presence of community life leaders and local government representatives was observed, medical support was provided by local doctors or nurses, security was ensured by police officers from the nearest station, reports were prepared by journalists from local media, and

local entrepreneurs and clergymen were present), which is conducive to revealing power relations and building social capital.

### **Identity function**

As regards the problem of cultural disharmony, firefighting sports competitions should be considered as a tool for building and upholding the collective identity of volunteer firefighters in general as well as local firefighters living in the same village. In the former case, the ritualistic aspect of such a competition is especially important; the competitions have their own universal order set down in the rules of the Association of Volunteer Fire Brigades of the Republic of Poland (Związek OSP RP), but also in the unwritten OSP tradition. In this sense, judging by the literature of the subject and reports posted in social media, for example, the competitions are surprisingly similar despite taking place in different sociocultural contexts (in the regions of Mazovia or Western Pomerania, Silesia or Lesser Poland, etc.). The exposition of firefighter symbols in the public space (the association cross, helmets, axes, logos with St. Florian), the sound of the red fire engine sirens (the vehicles being spruced up for the competition), equipment placement in specific positions, a drill display, the commands issued, the ritual "bath" of the victorious team's leader in the firefighting water tank after the competition, the ceremony for presenting prizes to the winners, in which local authorities take part – all these are common elements of the competitions under analysis, the message thus being recognisable to volunteer firefighters from all over Poland. In a situation of progressive heteronomy of rural communities, diversification of local cultures, introduction of new and remodelling of existing cultural practices (e.g. with the appearance of new rural resident categories), firefighting sports competitions appear as a manifestation of a surprisingly lasting element of rural Poland's life based on the firefighting ethos. Every year, thousands of these competitions demonstrate faithfulness to the principles of group effort, integrity, sacrifice, physical and technical fitness [3]. The competitions observed by the author were characterised by universal approval of obeying the rules of rivalry, though this was sometimes accompanied by disputes over the interpretation of regulations (verbal conflicts with competition judges from the State Fire Brigade were not uncommon, e.g. over acknowledging the correct performance of given elements of a competition). Considering that participation in firefighting sports competitions is a more frequent occurrence than going out on rescue operations for many OSP units, one might risk saying that being a volunteer firefighter means taking part (actively or passively) in sports rivalry.

Firefighting sports competitions also consolidate local identity. During the contests, the aspirations of a given local community's members are transferred

onto the firefighters from the local OSP unit. The spectators root for “their own” – and “their own” represent a specific village whose good result of its OSP in the contest will enable it to manifest its distinctness and autonomy in the local system, to underline its assets (the residents’ resourcefulness and fitness) while helping eliminate any actual or imaginary faults (e.g. a small population, a stereotypical image of the residents).

However, local collectives do not meld into a single entity through these competitions as social situations engaging representatives of various local systems. In fact, differences between villages reveal themselves and are upheld. This is the effect of the aforementioned strong local rooting, but also the inter-generational character of membership in volunteer fire brigades. In this context, one might mention frequent reminiscing about past contests (including those in which now deceased OSP members – relatives of current contestants – took part) during the competitions observed in the study.

The cohesion of the OSP units themselves is a different matter. By defining the local firefighter “I” on the basis of a series of competitions, units that are diverse in terms of the social traits of their members undergo consolidation. Narrative references invoking past successes and firefighters who played a major role in the preparations and the progress of competitions consolidate the group. Stories and anecdotes from past times supplement the physical marks of a given unit’s identity (i.e. the coat of arms, the firefighting chronicle, photographs and other mementoes). The firefighter reminiscences observed during the study were characterised by nostalgia – the myth of the “golden age” of the OSP unit in a given village was connected with longing for a time when “more firefighters were involved”, they were physically fitter, they were leaders in the area (e.g. through community activity) and the pride of their village at the same time.

### **Stratifying function**

The problem of limited resources in the local community is linked to organisational difficulties with preparing firefighters for the competitions. The fact is that participation in the annual contests remains voluntary, and just mobilising the group for the occasion might be considered (especially in the case of the smallest villages) an indication of substantial organisational effort. OSP units’ participation in (or, rather, absence from) events observed as part of the study was affected by: (1) an incomplete team line-up (especially when the vacancies were posts involving a lot of responsibility for the final result, e.g. engineer or control firefighter); (2) conflicts within a firefighter group (involving internal issues in the unit, including the activity of the management, or issues not related to sports); (3) hostility among firefighters in the municipal structures of the Association of Volunteer Fire Brigades or a conflict with the local government (over

the level of support involving public funds and/or equipment). This last factor is closely linked with the prestige-related significance of these competitions for the entire local system: they are not only an annual firefighter festivity, but in fact also the only opportunity for formalised rivalry between institutions representing different villages. Echoes of this rivalry also reach residents with no interest in sports and no ties at all to the volunteer fire brigades. The unique moment of collective focus created by a municipal firefighting sports competition means that the fact of a unit's absence from a given contest might be treated as a form of symbolic manifestation of disapproval of the given social situation and the organisers (i.e. the municipal authorities). That is exactly why it is the ambition of local government officials to draw in the greatest possible number of participants – active and passive – and to perform the most generous honouring and rewarding of the winners in public (with cups, cash prizes or new equipment). However, firefighters are not simply voters as in the local system under consideration, they were a kind of “activist group” supporting the mayor during the local government election campaign. From the mayor's perspective, holding the firefighter competition was a measure aimed at mobilising his supporters.

An analysis of the final protocols from competitions in the municipality of S. over the past decade reveals the existence of a local hegemonic leader of firefighting sports. In the last ten years, the OSP unit from the village of O. (spatially peripheral in the local system, but having a strong identity fortified by other institutions of community life, i.e. the school or the parish) was the most regularly appearing leader of the general classifications: according to information obtained in the study, it won 14 times in a row (sic!). Interestingly, the O. firefighters' high level of technical training was not reflected in their presence in the Polish National Emergency and Fire System (requiring high professionalisation and full readiness to take part in emergency rescue missions), as opposed to firefighters from the same municipality's villages of B. and S. (functioning in the aforementioned national system for many years). Nevertheless, in the competition participants' opinion the rivalry between the above-mentioned teams was seen as being particularly intense, generating the biggest emotions – also observed during the field study – and the greatest number of remarks on the work of the competition judges, who were career firefighters from the State Fire Service (PSP) county headquarters (spectators and contestants openly accused the judges of not being meticulous about judging the technical aspects of a spectacular competition event colloquially known as “the combat”). Judging by the responses observed right after the event, a decidedly less ambitious and more fun-oriented approach to the competition rivalry was shown by firefighters representing OSP units from the villages of I. and W., which usually ended the competition near the bottom of the list (their failure was thus not painful enough to disrupt the group's cohesion). Declarations made by firefighters from the other

units observed during the competition indicate that for them, the aim of taking part in the contest was to win a place on the podium or, alternatively, to beat the teams from B. and S. However, beating the hegemonic leader was only considered realistic in the relay race, i.e. a typical fitness event and much less of a technical one.

The above findings have led the author to the conclusion that at the meso-social level, success in these competitions not only increases prestige but also helps to gain additional advantages in the local power play, e.g. regarding the replacement or purchase of equipment (including the most coveted fire engine). Firefighting sports competitions thus fulfil a stratifying function: they position OSP units in local hierarchies of self-organisation (the winners are firefighters capable of putting together a good team), training (the winners are firefighters who train regularly), but also access to municipal resources (winning may bring a given OSP unit financial gain), which translates into subsequent real-term possibilities of influencing the social environment [21].

### **Integrating function**

The loosening of social ties in the rural environment has a negative impact not only on the efficiency of civic institutions but also on residents' ability to undertake local initiatives for the common good, crisis control (at the level of the system's resilience), and cooperation in a general sense. In other words, we are witnessing the weakening of rural areas' social capital (in its cohesion as well as its bridging aspect). Counteracting the loosening of social ties may take the form of intensive contacts between people and groups, resulting in increasing mutual trust, building interpersonal relations, exchanging information, etc. As open and egalitarian events marked by the collective, ludic and physical character of participation, which means they fulfil a significant integrating function, firefighting sports competitions are an instrument of increasing the social capital of people and institutions.

The firefighting sports competition case studies have shown that the contests' positive integrating effects were felt by the volunteer firefighters themselves as well as the people watching their rivalry – family and friends, neighbours, but also random spectators. The integration of an OSP unit already occurred during preparation for the competition. Statements obtained from firefighters indicate that the very fact of joint training in the afternoons (from a few days to a fortnight before the competition) enabled them to renew their acquaintance with fellow unit members, especially those who devote most of their days to jobs or studying outside their place of residence, or those completely engrossed in their family life who do not get involved in the unit's activities on a daily basis. Preparing for a firefighting sports competition enables volunteer

firefighters to gather together in person, hold longer-than-usual conversations, exchange observations and discuss topics not necessarily connected with OSP activities. The crowning element of such “training with a fire pump” is driving a fire engine to the competition and – regardless of the place secured in the contest – the joint celebration of the team’s efforts and the final position in the classification, back at the team’s home fire station. It is particularly in small communities, which have few opportunities to spend free time together as a community, that the integrating value of firefighting sports competitions and their often quite grand summary celebrations can be fully noticed and appreciated.

The place where a competition takes place – within the local system – may also be treated as a substitute for a local stage shaping public behaviours. The lack of anonymity of the people there (direct acquaintance with the volunteer firefighters from neighbouring villages) and the required rules of behaviour recognised by all the “locals” facilitate integration and enable the competition spectators and participants to feel confident and comfortable on such a stage [24]. In terms of a cultural event, these competitions may be interpreted as a neo-tribal form of consuming seldom organised (once a year) attractive entertainment. In this sense, the competitions are a form of “people communing with people” events, socio-centrally oriented, preventing the atomisation of local communities in rural Poland and obviously affirming the fun aspect [2]. Additional attractions set up near the playing field, such as bouncy castles, beer gardens (which open after the competition!) and ice cream or candyfloss stands, definitely facilitate intergenerational and family integration.

## Conclusions

The analysis presented here is based on case studies and does not allow us to determine whether sporting activity is a daily element of their service for all volunteer firefighters. Intuition suggests that this might mainly be the case for relatively young firefighters, with a lot of free time on their hands or wanting to develop their firefighting skills. Nevertheless, an overview of the literature as well as the empirical material gathered in this project appear to confirm that the widespread and main demonstration of such an activity is the OSP firefighting sports competitions held every year at the municipality level. Moreover, these competitions fulfil important functions in a macrosocial sense (being an element of the firefighting movement’s identity and a consequence of its ethos), in a meso-social sense (as a kind of unofficial contest for OSP units’ social position and resources in the local system) as well as a microsocial sense – they integrate and strengthen the social ties of firefighter families and a given OSP unit [4]. The data thus confirm the extraordinary poly-functionality of volunteer fire brigades

and their significant impact on rural communities – an impact that until recently has always been ignored in public policies involving the civic sector, which was most likely the effect of the volunteer fire brigades being perceived as a “different” form of nongovernmental organisation, in the sense of being traditional (many researchers assuming this to mean less civic and less useful for building social capital) [8].

The discussion offered in the present paper does not exhaust the issue. The author would like to point to two problems worth considering in future studies on OSP sports. One is related to firefighters’ perception of new forms of sports rivalry – “disciplines” promoted top-down, sometimes with substantial support from private sponsors. They include events like firefighter logging and sawing contests signed with the logo of one of the biggest manufacturers of petrol-powered saws (basic equipment at many fire stations these days). A question worth asking is whether the strongly traditional firefighting sports competitions might be replaced (or lose importance) following the generational change at OSPs and the progressive professionalisation of firefighting units. The other intriguing research direction involves the correlation between success in these competitions and an OSP unit’s active involvement in emergency rescue operations. Despite their occasional character, do firefighting sports events contribute to lasting improvement in firefighters’ skill levels and their increased readiness to take part in firefighting operations? Or, is the cause-and-effect relationship perhaps reversed? The answer – possible to find through statistical analyses based on data gathered by the State Fire Service – would place the topic of sports in the volunteer fire service within the scope of the increasingly popular studies on serious games, i.e. tools of effective training, for acquiring new skills and simulating their use in various situations, including emergency rescue operations [28]. In times of global upheavals caused by the pandemic and armed conflicts, this aspect seems especially important from the point of view of internal security.

Sports in rural Poland have more than one face. Moreover, both rural residents’ attitude to sporting activities and the actual institutions that popularise sports will probably undergo further diversification. This process might be accelerated by the progressive heteronomy of the social structure (e.g. due to the sources and value of the rural population’s incomes) as well as the availability of advanced infrastructure (opportunities to pursue more demanding sports disciplines). It is hard to say whether firefighting sports competitions will retain their importance for rural communities in the longer term, and maintain the function of stabilising the activity of OSP units that is attributed to them, or whether they will become a niche activity and be subjected to a kind of “folklorisation” as one of many events that people follow in summer. This uncertainty about tomorrow and the ambiguity of current diagnoses means that the phe-

nomenon presented in this paper, as well as its social context, is still attractive as a subject of study and needs ambitious research projects within the field of studies on sports and physical culture.

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## **CZĘŚĆ III**

**UWARUNKOWANIA ZDROWIA, POSTAWY  
PROZDROWOTNE, JAKOŚĆ ŻYCIA**





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## The menarcheal age of school-aged female athletes in the light of their social and environmental background

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### Wiek menarche młodych sportswomenek w świetle zmiennych społeczno-środowiskowych

#### Streszczenie

Celem pracy było przedstawienie wieku menarche dziewcząt pochodzących z różnych rodzin, środowisk i warstw społecznych oraz w odniesieniu do wielkości wskaźnika BMI. Badaniami objęto 119 dziewcząt (w wieku 16–19 lat) uczących się w szkołach sportowych. Za pomocą kwestionariusza ankiety zebrano dane dotyczące wieku menarche, wielkości środowiska zamieszkania, wykształcenia i charakteru pracy rodziców, pochodzenia społecznego i inne. Zmierzone wysokość i masę ciała dziewcząt i na ich podstawie obliczono BMI. Istotność różnic oceniono za pomocą jednoczynnikowej analizy wariancji ANOVA, testu Najmniejszych Istotnych Różnic Fishera oraz te-

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stu t-Studenta. Obliczono współczynnik korelacji rang Spearmana i przeprowadzono analizę korepondencji pomiędzy wiekiem menarche a pozostałymi badanymi zmiennymi. Na podstawie przeprowadzonych analiz i otrzymanych wyników można stwierdzić, że średni wiek menarche badanych dziewcząt nie różnił się istotnie od wieku menarche populacji ogólnej zamieszkującej zachodnią Polskę. Dziewczęta z miast, w których mieszka 100 tys. i więcej ludzi, a także te, których rodzice mają wyższe lub średnie wykształcenie, dojrzewają wcześniej, natomiast dziewczęta z mniejszych miejscowości, jak i te, których rodzice mają tylko wykształcenie podstawowe, dojrzewają później. Dziewczęta z nadwagą lub otyłością dojrzewają wcześniej niż dziewczęta o prawidłowej masie ciała i niedowadze.

**Słowa kluczowe:** dojrzewanie, zawodniczki, środowisko życia, BMI.

## Abstract

This study aimed to present the menarcheal ages of girls from different families, backgrounds, and social strata with respect to their BMI. This study included 119 girls (aged 16–19 years) from Polish sports schools. Using a diagnostic questionnaire, data on the girls' age at menarche, their living environment, parents' education and occupation, social origin, and others were collected. The body height and mass of the girls were measured, and the Body Mass Index was calculated. The significance of the differences was assessed using ANOVA, Fisher's least significant difference test, and t-test. Spearman's rank correlation coefficient was calculated and the analysis of correspondence was made between the age of menarche and the ranked variables. In conclusion, the average age of menarche among the studied samples did not significantly differ from that in the population living in western Poland. Girls from locations with 100,000 or more inhabitants and whose parents have higher or secondary comprehensive education are early maturing, whereas those from smaller towns and villages and whose parents only have primary education are late maturing. Girls with overweight or obesity mature earlier than normal and underweight girls.

**Keywords:** puberty, maturation, sportswomen, living environment, BMI.

## Introduction

In industrialized societies and developed countries, social and economic stratification are reflected in the biological growth rates of children and youth. Numerous studies show that girls from higher social classes mature earlier than their counterparts from lower ones [9, 53, 59]. The question arises whether the difference in growth rate reflects only girls' backgrounds. Many factors, including parents' education, the number of children in the family, and standard of living, indirectly affect the age of menarche. Thus, it can be concluded that biological differences are related to the living conditions. Among factors directly affecting girls' maturation rate the most often quoted are: nutrition, psychological factors, social background and physical work load [23, 39, 41].

Body height and age of menarche are most often used by anthropologists as indicators of the material and cultural position of families, professionals, and social classes. Age at menarche is especially sensitive to changes in quality of

life. This is corroborated, for example, by Charzewska et al. [7] and Charzewski et al. [8], who examined the growth and maturation of children and adolescents during the crisis of the 1970s and the 1980s in Poland and found out that girls from upper social classes matured earlier than girls from the poorest families, while parents' education, number of siblings, living in town or in the country, number of older siblings, parents' occupations, etc., indirectly affected girls' maturation.

Age at menarche is a highly variable and sensitive feature. Although biological maturation processes are strongly determined genetically, the age at first menstruation is highly affected by environmental and social factors. According to Łaska-Mierzejewska and Olszewska [30], it is a very sensitive 'barometer' of living conditions. The effect of living conditions on age at menarche has been described by several researchers [4, 7, 46, 59]. Various Polish and foreign authors estimate that the age of menarche has decreased by three years over the past century [18, 22, 35, 56]. At present, young people enter puberty earlier than they did 20 years ago, which is known as the acceleration of growth [29].

Numerous studies on menarche are most often based on studies in girls who are not physically active above average, and there are very few studies on groups of young girls practising sports [9, 31, 43, 54]. Girls who engage in sports consume much more energy because of their high training load, which, in addition to environmental and social factors, may affect their age at menarche.

Given the current status of research, this study aimed to examine the age at menarche in girls practising sports with regard to selected social-background factors and body mass index. Therefore, we need to answer the following questions: (1) Does the average menarcheal age of girls attending sports schools who are regularly loaded with exercise differ from that of girls who do not play sports or those who exercise occasionally?; (2) Among girls who regularly practise sports, do social variables such as the size of living environment, parental education and occupation, parents' social background, family status and number of siblings, and financial status of family differentiate the age of menarche?; (3) Is the menarcheal age of the girls studied associated with physique as determined by BMI categories?

## **Material and methods**

In 2017–2019, a cross-sectional survey was conducted on the age at menarche among students attending seven sports schools in Poland, Lubusz Province. The girls were asked whether they menstruated, and if so, they were asked about the date (year and month) of their first period [24]. This study included 119 girls (aged 16–19 years) who participated in regular training in various

sports. The sports which they practised were: acrobatic dance, bullseye shooting, bodybuilding, swimming, volleyball, handball, modern pentathlon, track and field, basketball, horse-riding, long-distance running, badminton, and acrobatics. This study was approved by the Bioethics Committee of the Regional Medical Council in Zielona Góra, Poland (Registry Number 3/63/2016).

Using a diagnostic poll and questionnaire, information was obtained about the girls' age at menarche, rural/urban background, parents' education and occupation, social origin, number of siblings, number of older siblings, type of feeding during the first six months of life, family material means, and family status.

Inaccuracy is a common problem in most retrospective studies [11, 14, 27]. Some studies have shown a tendency for women to under-report their menarcheal age [10], and some to over-report it – as they get older [6]. In some studies, the results appeared to be consistent or only slightly different [15]. In our study, we decided to apply a retrospective method because the study included girls between the ages of 16 and 19, meaning that only an average of five years had passed between menarche and the study.

Somatic measurements (body height and mass) were performed using the technique described by Martin and Saller [33]. Body Mass Index (Body Mass Index) was calculated using body height and mass data. The assignment to subsequent categories of the body mass index was as follows: (1) underweight ( $<M-1SD$ ), (2) normal weight ( $M\pm 1SD$ ), and (3) overweight or obesity ( $>M+1SD$ ) for subjects within each year of calendar age separately, in accordance with the reference values for assessing the nutritional status of children and adolescents in Poland according to OLAF [43].

## Data analysis

The mean age at menarche, along with the standard deviation and the variability coefficient, were calculated for particular social background factors that could affect the maturation rate (Table 1). The significance of the differences in the mean age at menarche for different social classes was assessed using the analysis of variance (ANOVA) and post-hoc Fisher's Least Significant Difference (LSD) test or Student's t-test (for independent samples). A p-value less than 0.05 implied statistical significance. Spearman's correlation coefficient was calculated between the age of menarche and social-background factors and between menarcheal age and BMI categories. In order to assess the structure of relations among the respective factors, the analysis of correspondence was used for the categorized age of menarche and factors that were correlated with the age of menarche. This method allows for graphical representation on the plane in the system of XY axes of the different categories of the dependent and independent variables, taking into account the distances between them. To carry out the correspondence analysis, the age of menar-



che was categorized based on the following centiles: 1 – <C25 (lower quartile = 11.5), 2 – (C25:C75), 3 – >C75 (upper quartile = 13.17), where 1 denoted an early maturing girl (in this cohort), 2 denoted normal maturation, and 3 denoted late-maturing girls. The purpose of the analysis was to show which categories of variables were close to each other and which categories were distant.

## Results

Below, the findings on the age at menarche with regard to selected social-background factors and BMI are shown (Table 1).

**Table 1.** The mean age at menarche with regard to socio-background factors and body mass index

Factors	N	M	SD	V	SS	df	MS	/8F	p-value	Post-hoc Fisher's LSD Test
Total	119	12.72	1.18	9.30						
<b>Living environment</b>					14.49	2	7.246	5.583	0.005	
Big town – over 100,000 inhabitants	(1)	43	12.27	1.09	8.88					1–2 (0.013)
Town of no more than 100,000 in- habitants	(2)	45	12.88	1.18	9.16					1–3 (0.002)
Village	(3)	31	13.10	1.15	8.78					
<b>Father's education</b>					26.41	3	8.802	7.301	0.000	
Primary	(1)	6	13.29	1.33	10.01					1–4 (0.031)
Secondary voca- tional	(2)	36	13.35	1.04	7.79					2–3 (0.001)
Secondary com- prehensive	(3)	42	12.50	1.03	8.24					2–4 (0.000)
Higher	(4)	35	12.23	1.19	9.73					
<b>Mother's education</b>					18.58	3	6.193	4.863	0.003	
Primary	(1)	11	13.40	0.91	6.79					1–3 (0.039)
Secondary voca- tional	(2)	32	13.16	1.14	8.66					1–4 (0.006)
Secondary com- prehensive	(3)	33	12.58	1.15	9.14					2–3 (0.042)
Higher	(4)	43	12.32	1.15	9.33					2–4 (0.002)

**Table 1.** The mean age at menarche... (cont.)

Factors	N	M	SD	V	SS	df	MS	/8F	p-value	Post-hoc Fisher's LSD Test
<b>Father's occupation</b>					5.445	2	2.722	1.979	0.143	
Manual job	(1)	69	12.54	1.15	9.17					
Intellectual work	(2)	36	12.95	1.01	7.80					
Other (odd jobs, disability benefit, old age pension)	(3)	14	13.02	1.60	12.29					
<b>Mother's occupation</b>					0.200	2	0.100	0.070	0.932	
Manual job	(1)	53	12.68	1.08	8.52					
Intellectual work	(2)	49	12.77	1.19	9.32					
Other (odd jobs, disability benefit, old age pension)	(3)	17	12.70	1.50	11.81					
<b>Father's social background</b>					2.854	3	0.951	0.674	0.569	
Working class	(1)	40	12.62	1.24	9.83					
Farmer family	(2)	15	12.42	1.42	11.43					
Intellectual family	(3)	41	12.87	1.14	8.86					
Other	(4)	23	12.82	1.01	7.88					
<b>Mother's social background</b>					3.976	3	1.325	0.649	0.421	
Working class	(1)	41	12.72	1.18	9.28					
Farmer family	(2)	14	12.68	1.77	13.96					x
Intellectual family	(3)	43	12.55	0.99	7.89					
Other	(4)	21	13.08	1.08	8.26					
<b>Number of elder siblings</b>					1.146	2	0.573	0.406	0.667	
None	(1)	60	12.63	1.19	9.42					
One	(2)	39	12.84	1.17	9.11					x
Two and more	(3)	20	12.75	1.21	9.49					
<b>Number of children in the family</b>					5.818	2	2.909	2.119	0.125	
One	(1)	17	13.25	1.04	7.85					
Two	(2)	59	12.67	1.16	9.16					x
Three and more	(3)	43	12.58	1.23	9.78					
<b>Feeding after birth</b>						117			0.930	
Breastfeeding	(1)	94	12.72	1.26	9.91					x
Artificial formula	(2)	25	12.70	1.40	11.02					

**Table 1.** The mean age at menarche... (cont.)

Factors	N	M	SD	V	SS	df	MS	/8F	p-value	Post-hoc Fisher's LSD Test
<b>Family's financial status (earnings)</b>					5.761	3	1.920	1.386	0.251	
Low	(1)	6	13.55	1.25	9.23					
Medium	(2)	11	12.92	1.12	8.67					x
Good	(3)	58	12.72	1.10	8.65					
Very good	(4)	44	12.56	1.28	10.19					
<b>Family</b>						117			0.917	
Two-parent	(1)	97	12.71	1.20	9.44					x
Single-parent	(2)	22	12.74	1.15	9.03					
<b>BMI</b>					11.15	2	5.58	4.20	0.017	
<M-1SD (under-weight)	(1)	10	13.66	1.71	12.52					1-2 (0.012)
+1SD (normal weight)	(2)	93	12.68	1.12	8.83					1-3 (0.006)
>M+1SD (over-weight or obesity)	(3)	16	12.35	1.05	8.50					2-3 (0.289)

Urban/rural living environment is a factor that accelerates or decelerates maturation. The first to mature were girls living in big towns or cities (M=12.27), then those living in small towns (M=12.88), and finally girls living in rural areas (M=13.10). The differences between the girls from big towns and smaller towns and between the girls from big towns/cities and those from villages were statistically significant (Table 1).

To determine how parents' education affected their daughter's age at menarche, four types of parents' education were distinguished: primary, secondary vocational, secondary comprehensive, and higher. The earliest to enter puberty were the daughters of fathers with higher education (M=12.23) and secondary comprehensive education (M=12.50), whereas the latest were the daughters of fathers with primary and secondary vocational education (M=13.29, M=13.35). The differences between the age of menarche of the girls whose fathers possess primary and higher education, those whose fathers have secondary vocational and comprehensive education, and those with secondary vocational and higher education are statistically significant (Table 1).

Regarding mothers' education, a similar phenomenon was noticed: the first to mature were the girls whose mothers had a higher (M=12.32) and secondary comprehensive education (M=12.58). Apart from the differences between the age at menarche of the girls whose mothers completed primary and secondary

vocational education and those with secondary comprehensive and higher education, all others were statistically significant (Table 1).

With regard to fathers' occupation, the earliest age of menarche was found in the case of the daughters of fathers performing manual jobs ( $M=12.54$ ). Next, there were the daughters of fathers performing white-collar jobs ( $M=12.95$ ). The latest to begin puberty were the daughters of fathers who were old-age pensioners, who were on disability benefits, or who did not have regular jobs ( $M=13.02$ ). The differences between the earliest and the latest girls (in terms of the father's occupation categories) with regard to maturity in this respect did not exceed 0.48 year and they were statistically insignificant. A similar situation could be observed with respect to the mother's occupation; the earliest age of menarche was found in the case of the daughters of mothers performing manual jobs ( $M=12.68$ ). However, this factor did not significantly affect the age at menarche in the girls practising sports on a regular basis (Table 1).

Another factor was the girls' parents' social backgrounds. With regard to social background, the earliest age of menarche was observed in the girls whose fathers were farmers ( $M=12.42$ ). Regarding the mother's background, the first to begin puberty were the daughters of mothers who came from intellectual families ( $M=12.55$ ), while the daughters of mothers from 'other' backgrounds matured the latest ( $M=13.08$ ). The difference of 0.53 year was statistically insignificant (Table 1).

The number of elder siblings did not significantly affect the age of menarche: the girls with no siblings were the first to have their periods ( $M=12.63$ ), while the last were those with one elder sibling ( $M=12.84$ ). The difference of 0.21 year was small and statistically insignificant (Table 1).

The total number of siblings in the family did not significantly affect age at menarche (Table 1). The earliest age of menarche was found in the girls who had two or more siblings ( $M=12.58$ ), and the latest in the girls who were the only children in the family ( $M=13.25$ ). Thus, the results show that the total number of children in the family was a weak operating factor. The difference of 0.67 year was statistically insignificant ( $p=0.052$ ).

The data on the type of food, which the baby girls were provided with showed that this factor did not affect the age at menarche significantly. The girls who were breastfed entered puberty a little later than their peers who were fed with milk formula, the difference being statistically insignificant (Table 1). Therefore, this factor plays a negligible role in accelerating or delaying puberty. However, it should be noted that as many as 79% of the girls were breastfed by their mothers in their first year of life.

Regarding the financial status of the girls' families, the girls from well-off families were the first to mature ( $M=12.56$ ), whereas those from the poorest families were the last ( $M=13.55$ ). Although the difference of 0.99 years seems

large, it is insignificant ( $p=0.081$ ) due to a small number ( $n=6$ ) of the least well-off respondents (Table 1).

Family status was another factor that possibly affected age at menarche. The girls who had both parents had their first menstruation earlier ( $M=12.71$ ) than those who came from single-parent families ( $M=12.74$ ). The difference was 0.03 year and it was statistically insignificant (Table 1).

Considering the categorized BMI values, it can be noted that the youngest to mature girls were overweight or obese (mean age of menarche,  $M=12.35$ ) and the latest were underweight girls ( $M=13.66$ ). The difference in menarcheal age between normal-weight girls and overweight or obese girls was 0.33 years and was statistically insignificant, while the difference between age of menarche of normal weight girls and underweight girls was 0.98 years (statistically significant).

Spearman's correlation coefficient was used to assess the relation between the age of menarche and the selected social-background factors and BMI categories (Table 2).

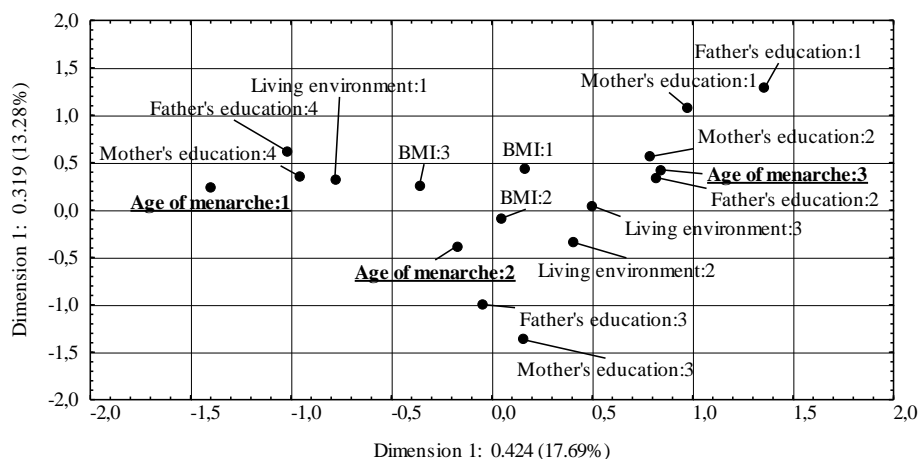
**Table 2.** Spearman's rank correlation coefficients between the age of menarche and the selected variables

Factors	Age of menarche
Living environment	0.2893*
Mother's education	-0.4716*
Father's education	-0.3722*
Number of elder siblings	0.0903
Number of children in the family	-0.1099
Family's financial status (earnings)	-0.2378
BMI (1 – underweight, 2 – normal weight, 3 – overweight or obesity)	-0.3217*

\* – significance at 0.05

Table 2 shows that age at menarche was significantly correlated with factors such as living environment, mother's education, father's education, and BMI. Living in larger communities has been linked to earlier menarche. The higher the parents' education level, the earlier the maturation of their daughters. The higher the BMI (the stouter the body), the earlier the maturation.

In addition, the correspondence analysis was used to categorize the age at menarche and the variables correlated with the age at menarche. The results of the analysis of correspondence for statistically significant variables correlated with the age of menarche (i.e., urban/rural living environment, parents' education, BMI categories) are shown in Figure 1.



**Figure 1.** Multiple correspondence analysis of the Burt matrix for the selected variables

Figure 1 shows the results of the multiple correspondence analysis of variables that were significantly correlated with age at menarche. The horizontal axis representing dimension 1 has the largest share (17.69%) of inertia, while dimension 2 (vertical axis) equals 13.28%. The two dimensions constitute 30.97% of the inertia. To the left of the center representing category 1 there are the girls who matured the earliest (most often from cities of 100,000 or more inhabitants (1), who were overweight or obese (3) and had parents with higher education (4); around the center there are the girls with 'standard' maturation (2) – most often living in smaller towns of Lubusz Province (2), whose parents possessed secondary comprehensive education (3), whose body weight was within the normal range (2); to the right of the center there are the late-maturing girls (3) – most often living in villages (3), whose parents had primary (1) or secondary vocational (2) education.

## Discussion

The age of menarche in girls practicing various sports occurs, as a rule, later than it does on average in the population [9, 31, 39, 50]. The mean menarcheal age of young female athletes in our study ( $12.72 \pm 1.18$ ) was similar rather than higher to those presented in other articles on girls from Lubusz Province who were not involved in sports or doing sports only recreationally. For example, Asienkiewicz and Wandycz [2] showed that the mean age at menarche was  $12.85 \pm 1.01$  years. Similarly, Tatarczuk et al. [51] reported 12.7–12.8 years and Tatarczuk et al. [53] reported  $12.42 \pm 1.18$  years. Data from other Polish regions

are similar:  $12.87 \pm 1.26$  years reported by Szwed and Kosińska [47]; and  $12.63 \pm 1.21$  years found by Saczuk et al. [44].

Age at menarche was an anthropological parameter used in this study to illustrate the effect of socio-demographic factors on the maturation rate of young female athletes. These factors include social origin, urban/rural living environment, level of cultural development, traditions and customs, and nutrition. [32]. In countries with high living standards, social stratification is reflected in the maturation rates of children and adolescents. The effects of these factors on the age at menarche are well documented [8, 11, 50, 57, 58].

The question arises as to why girls living in towns mature earlier than their peers from rural areas. Favorable environmental and social conditions result in a fuller use of genetic possibilities, as manifested in this case by earlier menarche. The temporal differences in the average age of menarche of girls from different social groups are a good measure of the distance between the social strata. The differences are more acute when there are greater differences in the degree of urbanization, the practical use of civilization and hygienic achievements in everyday life, nutritional status, daily workload, parents' educational background, and awareness [3, 5, 28, 38, 49, 57].

The research conducted by the authors of this study confirms that the urban/rural environment significantly influences the rate of maturation in girls practicing sports. The lowest menarcheal age was observed among girls from towns with more than 100,000 inhabitants, while the highest was among those living in rural areas (as confirmed by the correspondence analysis, Figure 1) and by Spearman's rank correlation coefficients (Table 2). Our findings confirm the results of previous studies conducted by other researchers [8, 20, 21, 24, 30, 34, 36, 45, 52]. The effect of gradient on the age of menarche was confirmed.

The education of parents (father's, mother's, or both) may be another factor indirectly affecting the menarcheal age of girls. Some studies confirm the significant impact of this factor [1, 9, 12, 19, 36, 46, 59], whereas others attest to its lesser or even negligible significance [13, 20, 21, 37]. Another study of girls in Lubusz Province (general population without considering sports activities) reported a significantly lower age of menarche only if the father's education level was higher [52]. Our results, despite small differences in the mean age of menarche between girls from different categories of parents' education, show a specific trend that menarcheal age decreases with the increasing level of parents' education, both fathers' and mothers' as confirmed by the significant Spearman's rank correlation coefficients.

Earlier periods tend to occur in girls in a population with increased caloric intake, mainly of plant origin, and a higher incidence of overweight and obesity [17, 55]. Research by Frisch and Revelle [16] showed that menarche usually occurs after women reach the so-called critical weight. In our study, we decided to

analyze the influence of body composition by assessing only the BMI of the studied females. Underweight and overweight are other factors which influence the age of menarche: the lower the value of body mass index, the later the maturation. Girls with too much body weight (overweight/obesity) matured earlier than those with normal weight (non-significant difference) and underweight (statistically significant difference). The same relationship (between menarcheal age and BMI) has been confirmed by previous studies [1, 19, 20, 24, 25, 30, 42].

It is worth noting that the statistically significant factors affecting the age of menarche in school-aged female athletes are as follows: living environment, mother's and father's education, and BMI. The other factors that our study examined (father's and mother's occupation, father's and mother's social background, number of children in the family, number of elder siblings, feeding after birth, family's financial status, and family status) did not affect the age of menarche in girls practising sports.

The literature indicates that differences in the age of entering puberty between different groups and social environments are diminishing. It can be assumed that in conditions of economic unease, all life contrasts are sharper, and after reaching a certain level of affluence (e.g. in rich countries of Western Europe), social and class differences, although they still exist, affect the maturation of young people to a lesser extent [26, 50, 58].

At present, it is increasingly stressed that the acceleration of maturation caused by technological progress is a desirable effect, but it cannot be ruled out that proper biological development could occur at a slower pace [4]. Based on the results presented in this paper, it can be concluded that the female athletes included in our study matured at a similar age rather than later, in relation to girls who were not physically active, but their bodies were more susceptible to the influence of environmental and social factors and dependent on body slenderness. According to Tanner [48], there is no reason to think that earlier maturation is good, and there is some evidence to the contrary. Thus, the question arises as to what is the most desirable developmental path for the body. The unquestioned benefits of earlier maturation of girls include earlier puberty (high linear body gain), earlier maturation of the skeleton, and certain body proportions (especially the pelvis), as well as earlier readiness of the organism to produce offspring.

### **Limitations of the study**

The problem with retrospective studies in general may be their inaccuracy, but this inconvenience applies to most studies that involve accessing the memories of the subjects. Another problem may be that the number of girls participating in the study was too small, which may have caused some of the differences in menarche age between the analyzed categories of social characteris-



tics, although large, to be statistically insignificant. Secondly, the insufficient number of girls did not allow for an additional comparison of menarche age between overweight and obese participants.

## Conclusions

The average age of menarche among girls attending sports schools and regularly practising sports is not significantly different from the age of menarche in the general population living in Lubusz Province (western Poland). In the group of female athletes, the following variables had a significant impact on the lower age of menarche: the living environment (especially in girls from cities with more than 100,000 inhabitants) and higher education of parents (mother's and father's education). Underweight girls (as indicated by Body Mass Index) usually mature later than those with normal weight and those who are overweight or obese.

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### STATEMENT OF ETHICS

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the Bioethics Committee at the Regional Medical Council in Zielona Góra, Poland (registry number 3/63/2016). All participants provided written informed consent to participate in this study.

### DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of the article *The menarcheal age of school-aged female athletes in the light of their social and environmental background*.

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## Obesity indicators among 7–9 year-old girls and boys in view of diversified physical activity: a two-year study

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### Wskaźniki otyłości wśród dziewcząt i chłopców w wieku 7–9 lat w świetle zróżnicowanej aktywności fizycznej: badania dwuletnie

#### Streszczenie

Wobec negatywnych skutków niskiej aktywności fizycznej, w pracy przedstawiono wartości (oraz przyrosty) poszczególnych cech somatycznych i wskaźników proporcji ciała uznawanych za wyznaczniki nadwagi i otyłości wśród dziewcząt i chłopców w wieku 7–9 lat w świetle zróżnicowanej aktywności ruchowej. Materiał badawczy stanowią wyniki dwuletnich badań dziewcząt i chłopców w wieku 7–9 lat. W badaniach wzięło udział łącznie 253 uczniów: 167 uczniów klas ogólnych – niesportowych (75 dziewcząt i 92 chłopców) oraz 86 uczniów z klas sportowych – klas o profilu akrobatyka sportowa (50 dziewcząt i 36 chłopców). W ramach badań przeprowadzono 3 serie po-

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miarów, które obejmowały dwuletni okres edukacji wczesnoszkolnej. Dokonano pomiarów wysokości i masy ciała, obwodu talii, obwodu bioder oraz grubości czterech fałdów skórno-tłuszczowych. W oparciu o wyniki pomiarów antropometrycznych wyliczono wskaźniki proporcji ciała (BMI, WHR, WHtR). W analizowanym okresie ontogenezy (7–9 lat) uczniowie z klas ogólnych na tle sportowych wyróżniają się większymi parametrami wskaźników otyłości, zwiększającymi ryzyko zachorowania na choroby metaboliczne. Dzieci z klas ogólnych relatywnie do sportowych charakteryzują się przeciętnie większym wskaźnikiem BMI, obwodem talii i bioder, grubością fałdów skórno-tłuszczowych, wskaźnikiem WHtR.

**Słowa kluczowe:** otyłość, klasy sportowe, aktywność fizyczna, rozwój.

## Abstract

Considering the negative effects of low physical activity, this study presents the values (and increases) of individual somatic features and body proportion indicators considered to be determinants of being overweight and obese among the examined girls and boys in view of differentiated physical activity. The research material includes the results of a two-year study of girls and boys aged 7–9. It involved 253 pupils: 167 from general classes and 86 from sports classes (sports acrobatics classes). Three series of measurements were carried out, covering a 2-year period of early primary education. As part of the research, measurements of body height and mass, waist circumference, hip circumference and the thickness of skin and fat folds were measured. The body proportions were calculated based on anthropometric measurements. In the analyzed period of ontogenesis (ages 7–9), pupils from general classes, when compared to those from sports classes, were distinguished by higher parameters of obesity indicators, increasing the risk of developing metabolic diseases. Children from the general classes, in contrast to those from the sports ones, were characterized by a higher Body Mass Index, waist and hip circumference, thickness of skin and fat folds, and waist-to-height ratio.

**Keywords:** obesity, sports classes, physical fitness, development.

## Introduction

Overweight and obesity among children and adolescents have become serious public health problems in developed and developing countries. The prevalence of obesity in children and adolescents has increased dramatically. According to WHO data, in 2016, overweight or obesity was reported in over 380 million children and adolescents (aged 5–19) worldwide [46].

Obesity is directly related to many diseases such as type 2 diabetes, hypertension, coronary artery disease, nonalcoholic liver disease, chronic kidney disease, dyslipidemia, and cancer [6, 28]. Obesity also causes psychological problems and may lead to depression [38]. Childhood and adolescent obesity continue into adulthood [34, 28] and are causes of premature death [21]. A meta-analysis has shown that obese children have a five times higher risk of becoming obese in adult life than children with normal weight [42]. In another study, approximately 80% of adolescents with obesity remained obese in adulthood [14].



The growing percentage of overweight and obese people is becoming a serious medical, social, economic, personal, and family problem [35]. The causes of the overweight and obesity epidemic are very complex, but it should be borne in mind that one of the main reasons (along with improper nutrition, genetic conditions, etc.) is a low level of physical activity [35]. Unfortunately, according to a WHO report, three out of four teenagers (aged 11–17) worldwide do not meet WHO recommendations for physical activity. In Poland, according to the HBSC report [30], only 17.2% of young people aged 11–15 meet the recommendations for moderate physical activity, which is less than one-fifth of the surveyed population. Comparing the data obtained in the last two series of studies (from 2014 and 2018), a clear negative trend was observed in the decrease in the percentage of young people meeting the WHO recommendations regarding moderate physical activity, from 24.2% in 2014 to 17.2% in 2018.

The complexity of the factors in the development of overweight and obesity among children and adolescents leads to difficulties in the treatment of these demographic groups. Numerous preventive programs for childhood and adolescent obesity have been ineffective [28]. Research indicates that in preventing obesity in children (ages 6–12), focusing on activities related to physical activity may reduce the risk of reaching critical BMI values, but there is no conclusive evidence that activities focusing solely on diet are effective in this regard [7].

Early identification and prevention are the key to controlling the global obesity epidemic. Considering that the percentage of overweight children and adolescents is much higher than the percentage of obese children and adolescents, it seems reasonable to focus on overweight people who are at risk of developing obesity in the future [28]. Hence, the aim of this study was to present the values (and increments) of individual somatic features and body proportion indicators considered to be determinants of overweight and obesity among girls and boys (aged 7, 8, and 9) from general classes compared to girls and boys with a lot of physical activity (studying in sports classes).

## **Material and methods**

### **Participants**

The research material consists of the results of a two-year study of girls and boys aged 7–9. The study involved the purposeful selection of the research group. Schools from Western Polish towns and cities where sports acrobatics classes were conducted were selected. The research was conducted in Zielona Góra, Sulechów, Jawor, and Poznań. In the sports classes examined, the weekly number of hours spent on sports activities was 10. Additionally, students from

these classes had two hours of physical education with their form teacher to implement the content of the core curriculum, while in general (non-sports) classes, students had three hours of physical education per week.

A total of 253 students participated in the study. The research included 167 pupils from general, non-sports classes (75 girls and 92 boys) and 86 pupils from sports classes – sports acrobatics profile (50 girls and 36 boys). In general classes, the basic physical education curriculum was followed with the number of three hours a week, while in sports classes, students followed an extended physical education program with the amount of 10 hours of training classes per week (in accordance with the Regulation of the Minister of National Education of March 27 2017 on sports classes and schools as well as sports championship classes and schools [37]).

The calendar age was calculated for each respondent using the decimal system [15]. As part of the study, three series of measurements were carried out, covering a 2-year period of early childhood education (grades 1–3 of primary school). The research was initiated in September 2017, when students started their first year of primary school, then in September 2018 (in the second year of primary school) and in September 2019 (at the beginning of the third year of primary school). The research protocol was approved by the Bioethics Committee of the Regional Medical Council in Zielona Góra (Bioethics Committee Resolution No. 17/82/2017 of 17 July 2017).

## Measurements

As part of the research, measurements of body height and weight, waist circumference, hip circumference and the thickness of four skin and fat folds (on the abdomen, on the iliac crest, on the shoulder, at the lower angle of the scapula) were measured. The following body proportions were calculated based on anthropometric measurements: Body Mass Index (BMI, [kg]), body height [m], waist circumference (WHR), and waist circumference (WHtR) [47,17,23,18].

## Data analysis

The arithmetic means (M), standard deviations (SD) of the examined features, and calculated body proportion indicators were calculated. The levels of the tested features of girls and boys from sports classes were compared against the background of their peers from general classes. The Student's t-test (t) was used to determine the significance between the mean values of the studied features [1,43]. Moreover, the average increases in the examined somatic traits between 7–8, 8–9 and 7–9 years of age among the examined girls and boys from sports and general classes were presented. To determine the influence of physical activity on the development of individual somatic features and body propor-

tion indices, a two-factor analysis of variance with repeated measures was applied ( $\eta_p^2$ ).

## Results

Girls from sports classes in all series of measurements were, on average, shorter than their peers from general classes, with statistically insignificant differences (Table 1). During the 2-year observation period, the height gain in the acrobats was 11.67 cm, compared to 10.93 cm in the non-training girls (Table 2). In contrast to the female teams under investigation, the boys from sports classes were, on average, taller than their peers from general classes, with statistically insignificant differences (Table 1). During the 2-year observation period, the increase in body height was 11.83 cm in the acrobats and 11.16 cm in the boys from the general classes (Table 2).

**Table 1.** Numerical characteristics of somatic features and body proportions indices of the examined girls and boys aged 7, 8, 9

Feature	Age	Girls (n = 125)			Boys (n = 128)		
		sports classes (n = 50)	general classes (n = 75)	t	sports classes (n = 36)	general classes (n = 92)	t
		M ± SD	M ± SD		M ± SD	M ± SD	
Body height [cm]	7	122.39 ± 4.92	123.69 ± 6.39	-1.30	125.77 ± 6.43	125.65 ± 5.18	0.12
	8	128.10 ± 5.11	128.81 ± 6.62	-0.71	131.64 ± 6.79	131.03 ± 5.22	0.60
	9	134.06 ± 5.43	134.62 ± 6.73	-0.56	137.60 ± 6.92	136.81 ± 5.31	0.80
Body mass [kg]	7	23.99 ± 4.58	25.70 ± 5.39	-1.72	25.21 ± 4.31	25.68 ± 3.64	-0.47
	8	26.80 ± 4.80	28.81 ± 5.92	-2.01*	28.06 ± 4.66	29.62 ± 4.60	-1.56
	9	30.06 ± 5.28	32.85 ± 6.52	-2.78*	32.11 ± 5.13	34.16 ± 5.24	-2.05*
BMI	7	15.91 ± 2.10	16.67 ± 2.32	-0.76	15.84 ± 1.70	16.20 ± 1.41	-0.36
	8	16.24 ± 1.99	17.24 ± 2.41	-1.00*	16.10 ± 1.67	17.19 ± 1.92	-1.08**
	9	16.63 ± 2.00	18.00 ± 2.41	-1.37**	16.87 ± 1.70	18.19 ± 2.04	-1.31**
Waist circumference [cm]	7	54.33 ± 5.49	55.56 ± 6.18	-1.23	56.72 ± 5.21	57.75 ± 6.45	-1.03
	8	55.76 ± 5.36	57.92 ± 6.18	-2.16*	58.35 ± 5.36	59.83 ± 6.57	-1.47
	9	57.84 ± 5.54	60.30 ± 6.16	-2.46*	60.05 ± 5.47	62.59 ± 6.87	-2.55
Hip circumference [cm]	7	64.84 ± 5.76	66.05 ± 5.60	-1.21	65.98 ± 4.54	67.01 ± 5.04	-1.03
	8	66.96 ± 5.81	69.39 ± 5.48	-2.43*	67.96 ± 5.03	69.37 ± 5.45	-1.41
	9	70.11 ± 5.83	72.82 ± 5.78	-2.70*	70.65 ± 4.98	72.82 ± 5.75	-2.18
WHR	7	0.84 ± 0.05	0.84 ± 0.07	0.00	0.86 ± 0.06	0.86 ± 0.06	0.00
	8	0.83 ± 0.05	0.84 ± 0.07	-0.01	0.86 ± 0.06	0.86 ± 0.06	0.00
	9	0.83 ± 0.04	0.83 ± 0.06	0.00	0.85 ± 0.05	0.86 ± 0.06	-0.01

**Table 1.** Numerical characteristics of somatic features... (cont.)

		Girls (n = 125)			Boys (n = 128)		
Feature	Age	sports classes (n = 50)	general clas- ses (n = 75)	t	sports classes (n = 36)	general clas- ses (n = 92)	t
		M ± SD	M ± SD		M ± SD	M ± SD	
WHtR	7	0.44 ± 0.04	0.45 ± 0.04	-0.01	0.45 ± 0.03	0.46 ± 0.05	-0.01
	8	0.44 ± 0.03	0.45 ± 0.04	-0.01*	0.44 ± 0.03	0.46 ± 0.04	-0.01
	9	0.43 ± 0.03	0.45 ± 0.04	-0.02*	0.44 ± 0.03	0.46 ± 0.04	-0.02*
The sum of 4 folds [mm]	7	33.91 ± 14.77	37.46 ± 20.19	-3.54	31.95 ± 15.46	35.06 ± 19.21	-3.12
	8	34.07 ± 14.96	39.53 ± 21.49	-5.45	31.96 ± 15.58	37.26 ± 20.25	-5.30
	9	35.72 ± 15.97	43.50 ± 22.55	-7.78*	33.04 ± 13.88	41.12 ± 21.86	-8.08*

BMI: Body Mass Index, WHR: Waist-to-hip ratio, WHtR: Waist-to-height ratio

\* statistically significant differences at  $p \leq 0.05$

\*\* statistically significant differences at  $p \leq 0.01$

With regard to body weight, it was noted that both the girls and boys from sports classes in each series of measurements (between 7-9 years of age) were, on average, lighter than their peers from general classes. With each consecutive year, the differences in body weight between the teams from the sports and general classes increased (Table 2). In the examined girls, in the first series of measurements (the age of 7), there were no statistically significant differences between the average body weight, while in the second (the age of 8) and the third series (the age of 9), statistical significance at the level of  $p < 0.05$  was noted (Table 1). In the girls from sports classes, the annual weight gain in the first period of the study was 2.82 kg, while in the girls from general classes it was 3.11 kg. In the second series of tests, the acrobats gained 3.26 kg on average, and their non-training peers 4.04 kg. During the 2-year observation period, girls from sports classes increased their body weight by 6.08 kg, while their peers gained 7.14 kg. (Table 2). In the examined boys, statistically significant differences between average body weight were noted in the third series of measurements (the age of 9). In the boys from sports classes, the annual weight gain in the first period of the study was 2.8 kg, and in the boys from general classes, it was 3.94 kg. In the second series of tests, the acrobats gained 4.05 kg on average, and their non-training peers 4.54 kg. (Table 1.) During the 2-year observation period, the weight gain in the boys from sports classes was 6.90 kg, and 8.48 kg in their peers (Table 2).

**Table 2.** Characteristics of somatic increments in examined girls and boys

Feature	period	Girls (n=125)			Boys (n=128)		
		sports classes (n=50)	general classes (n=75)	t	sports classes (n=36)	general classes (n=92)	t
		increase	increase		increase	increase	
Body height [cm]	7-8	5.71 ± 0.59	5.12 ± 0.47	6.20**	5.87 ± 0.91	5.39 ± 0.63	3.40**
	8-9	5.96 ± 0.82	5.81 ± 0.68	1.10	5.96 ± 0.74	5.77 ± 0.83	1.22
	7-9	11.67 ± 1.27	10.93 ± 0.77	4.04**	11.83 ± 1.06	11.16 ± 1.13	3.09**
Body mass [kg]	7-8	2.82 ± 1.00	3.11 ± 1.13	-1.47	2.85 ± 1.14	3.94 ± 1.89	-3,24**
	8-9	3.26 ± 1.19	4.04 ± 1.09	-3,78**	4.05 ± 1.27	4.54 ± 1.18	-2.07*
	7-9	6.08 ± 1.80	7.14 ± 2.00	-3.04**	6.90 ± 1.95	8.48 ± 2.66	-3.23**
Waist circumference [cm]	7-8	1.44 ± 0.89	2.36 ± 0.38	-8.01**	1.63 ± 1.37	2.07 ± 0.62	-2.50*
	8-9	2.08 ± 0.60	2.38 ± 0.75	-2.34*	1.69 ± 0.88	2.77 ± 0.90	-6.10**
	7-9	3.51 ± 1.37	4.74 ± 1.10	-5.53**	3.33 ± 1.92	4.84 ± 1.52	-4.69**
Hip circumference [cm]	7-8	2.12 ± 0.78	3.34 ± 0.95	-7.58**	1.97 ± 1.64	2.36 ± 0.76	-1.80
	8-9	3.15 ± 1.86	3.42 ± 1.05	-1.05	2.69 ± 1.39	3.45 ± 1.26	-2.98**
	7-9	5.27 ± 1.98	6.77 ± 1.36	-5.01**	4.66 ± 1.93	5.81 ± 1.51	-3.56**
The sum of 4 folds [mm]	7-8	0.16 ± 0.59	2.07 ± 4.69	-2.87**	0.01 ± 0.44	2.19 ± 3.37	-3.86**
	8-9	1.65 ± 4.27	3.98 ± 2.53	-3.83**	1.08 ± 3.87	3.87 ± 3.13	-4,22**
	7-9	1.80 ± 4.29	6.05 ± 5.61	-4.54**	1.09 ± 3.74	6.06 ± 5.27	-5.16**

BMI: Body Mass Index, WHR: Waist-to-hip ratio, WHtR: Waist-to-height ratio

\* statistically significant differences at  $p \leq 0.05$

\*\* statistically significant differences at  $p \leq 0.01$

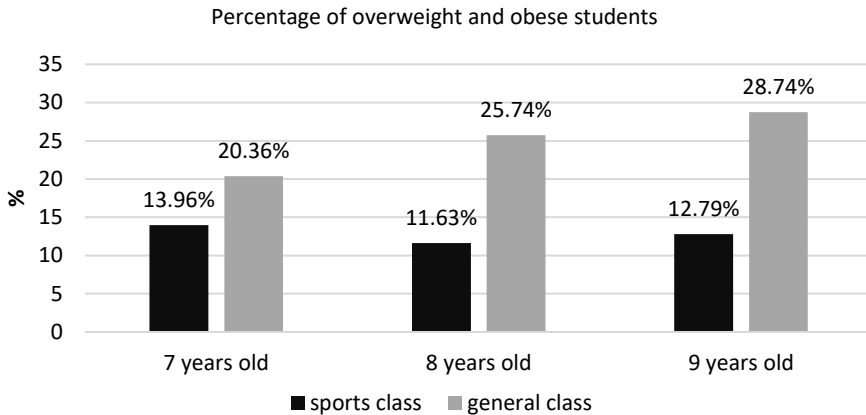
Large differences between the teams from sports and general classes were noted in the waist and hip circumferences. Girls and boys from sports classes, compared to girls and boys from general classes, were characterized by smaller waist and hip circumferences in all series of measurements. In the girls, statistically significant differences between the average waist and hip circumferences were recorded in the second (age 8) and third series of measurements (age 9), while in the boys in the third series of measurements (age 9). Each year, the differences in waist and hip circumference between teams from sports and general classes increased. In the two-year observation period (the ages between 7–9), the increase in hip circumference among the training girls was 5.27 cm, and 6.77 cm in the non-training girls, while the increase in waist circumference in the acrobats was 3.51 cm and 4.74 cm in their peers (Table 2). During the two-year observation period, the increase in hip circumference in the training boys was 4.66 cm, and 5.8 cm in the non-training boys, while the increase in waist circumference in the acrobats was 3.33 cm, and 4.84 cm in their peers (Table 2).

With regard to the thickness of the skin and fat folds, in the first series of measurements (the age of 7), no statistically significant differences were found between the teams from sports and general classes. However, in the next year (the age of 8), the differences became more visible, and in the third series of measurements (following two years of observation, at the age of 9), statistically significant differences in the total thickness of four skin and fat folds were noted. Annual increases in the thickness of the skin and fat folds were greater in the case of students from general rather than sports classes. During the two-year observation period, the average increase in the thickness of 4 folds in the training girls was 1.80 cm, and 6.05 cm in the non-training ones, while in the boys from sports classes – 1.09 cm, and 6.06 cm in their peers from general classes (Table 2).

Based on the examined features, body proportions were calculated. The BMI, both among the girls and boys from sports classes, was, on average, lower than that of their peers from general classes. In the first series of measurements (the age of 7), no statistically significant differences were recorded, but from year to year, the differences in the level of this indicator increased. In the 2<sup>nd</sup>, and 3<sup>rd</sup> series of studies (ages 8 and 9), some statistically significant differences were noted (Table 1).

As for individual assessment, cases of overweight and obese people were reported (based on the criteria of the International Obesity Task Force) [10,11]. This phenomenon concerns, to a greater extent, the pupils from general rather than sports classes. In the first series of measurements (the age of 7), in sports classes, the number of persons who were overweight or obese accounted for 13.96% of all students in these classes, while in general classes, it was 20.36%. In the second series of measurements (the age of 8), the percentage of overweight and obese students (11.63%) among the sports class students decreased, while in general classes, it increased to 25.74%. In the following year, there was an increase in the number of overweight and obese people in both sports and general classes. At the age of 9, the proportion of overweight or obese students in sports classes was 12.78%, while in general classes, it reached 28.74% (Figure 1).

The WHR index did not show much differentiation between teams in sports and general classes. There were no statistically significant differences in the average values for this indicator. The WHtR index, as opposed to the WHR index, revealed differentiation between teams from sports and general classes. With regard to this indicator, in the first series of measurements (the age of 7), no statistically significant differences were found between the teams from sports and general classes, while statistical significance was noted in the second series of studies (the girls) and the third series of studies (the girls and boys). Higher WHtR values were observed in the groups from general classes (Table 1).



**Figure 1.** Percentage of overweight and obese students in general and sports classes at the age of 7, 8, 9

When assessing the impact of physical activity on the development of individual features and indicators of body proportions, a two-factor analysis of variance was used, and 'class' (i.e., sports class or general class) was adopted as the factor determining the level of physical activity.

Regarding the eta-square partial analysis ( $\eta_p^2$ , Table 3), it was noted that the development of each examined feature and each body proportion indicator was more influenced by 'time,' i.e., the age of those examined (7, 8, 9 years old), than the 'class' factor (sports or general classes).

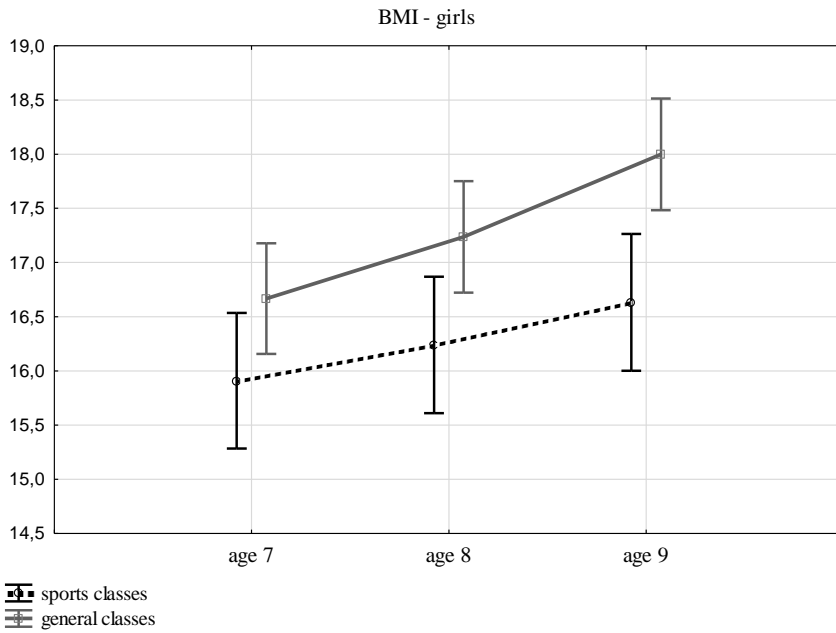
**Table 3.** Partial eta-square analysis ( $\eta_p^2$ ) for somatic features and indicators of body proportions of the examined girls and boys

Girls (n = 125)				Boys (n = 128)			
Class		Time		Class		Time	
Feature	( $\eta_p^2$ )	Feature	( $\eta_p^2$ )	Feature	( $\eta_p^2$ )	Feature	( $\eta_p^2$ )
BMI	0.05*	Body height	0.99**	BMI	0.06**	Body height	0.99**
Body mass	0.04*	Waist circ.	0.91**	WHtR	0.02	Body mass	0.87**
Hip circ.	0.03*	Body mass	0.91**	Body mass	0.02	Hip circ.	0.86**
Waist circ.	0.02	Hip circ.	0.90**	Hip circ.	0.02	Waist circ.	0.82**
WHtR	0.02	BMI	0.48**	4 folds	0.02	BMI	0.53**
4 folds	0.02	4 folds	0.32**	Waist circ.	0.01	4 folds	0.28**
Body height	0.00	WHtR	0.28**	Body height	0.00	WHtR	0.27**
WHR	0.00	WHR	0.16*	WHR	0.00	WHR	0.04**

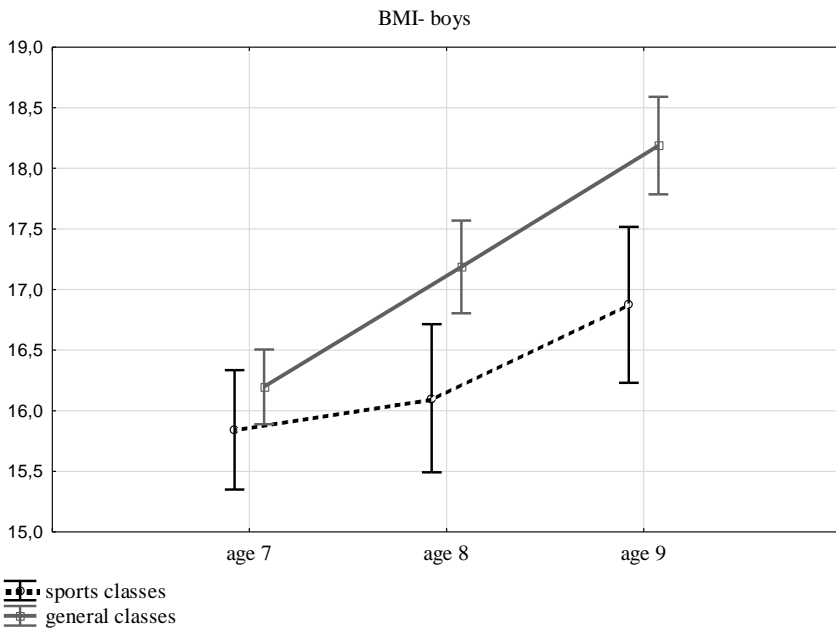
BMI: Body Mass Index, WHR: Waist-to-hip ratio, WHtR: Waist-to-height ratio

\* statistically significant differences at  $p \leq 0.05$

\*\* statistically significant differences at  $p \leq 0.01$



**Figure 2.** Graphical depiction of the two-way analysis of variance for the BMI indicator of the examined girls



**Figure 3.** Graphical depiction of the two-way analysis of variance for the BMI indicator of the examined boys



In the girls, physical activity (class) had a significant impact on BMI, body weight, and hip circumference, while time had a significant impact on all variables, with the greatest impact on body height, waist circumference, and body weight (Table 3). Among the boys, physical activity (class) had a significant influence on BMI. Time had a significant impact on all variables, with the greatest effect on body height, weight, and hip circumference (Table 3).

## Discussion

In both sports and general classes, the majority of students were characterized by the correct weight-to-height ratio (based on the classification of Cole et al. 2000, 2007) [10, 11]. However, the varying level of physical activity between sports and general class teams resulted in a greater increase in the number of overweight and obese students among the non-sports class students.

These results partially confirm this secular trend. The results of research in recent years indicate a dynamic increase in height and weight in the 80s and 90s, while a slowdown in the secular trend has been noted in the last decade [2, 4, 45]. According to the authors, significant weight gain accompanied by lower body height gains (for most age ranges) is a disturbing phenomenon. It reflects the tendency to increase body build (an increase in BMI) and attests to an increase in the percentage of overweight and obese children [2, 45].

The health risk of obesity depends not only on excess body fat but also on its location. Abdominal obesity ( android type) is associated with an increased cardiovascular risk and the occurrence of metabolic syndrome [13, 25, 36]. Waist circumference is independent of BMI and is a better measure of abdominal obesity in some cases [12, 24, 26, 31, 32, 40]. Waist and hip circumferences are among the basic anthropometric parameters, and their measurement is of fundamental importance in the diagnosis of obesity and assessment of adipose tissue distribution [12, 32, 16]. Until recently, there were no nationwide anthropometric studies allowing for the development of waist and hip percentile grids representative of the Polish population. It is assumed that a waist circumference exceeding the 95<sup>th</sup> percentile is the basic diagnostic criterion for metabolic syndrome. The development of the waist and hip percentile grids was undertaken by researchers from the Institute of the Children's Memorial Health Institute as part of the OLAF-PL0080 research project: „Development of blood pressure standards for the population of children and adolescents in Poland” [27].

Comparing the results of our own research against the standards from the OLAF-PL0080 project, it was noted that the average waist and hip circumferences of the surveyed students from general and sports classes were within the range of  $M \pm 1$  SD (despite the fact that the studies were conducted more than

10 years apart). Nevertheless, the average waist and hip circumferences of the girls from sports classes were below the average values, whereas those from general classes were above the average values of the OLAF project. Moreover, the average waist and hip circumferences of the girls and boys from general classes reflected the average for the higher age categories in the OLAF-PL0080 project [27]. The waist-to-hip ratio (WHR) was calculated based on waist and hip measurements [15, 25, 35]. There were no WHR reference values for children and adolescents. Moreover, the clinical usefulness of measuring WHR has declined in recent years owing to its weaker association with cardiovascular and metabolic risk factors compared to other clinical measures of obesity [16]. According to some researchers, waist circumference as a measure of abdominal obesity correlates with cardiovascular risk more than WHR [26, 31, 32]. Our research also indicates a low diagnostic value for WHR. Although there were statistically significant differences in waist and hip circumferences between sports teams and general classes (in the 2<sup>nd</sup> and 3<sup>rd</sup> series of studies in the girls, in the 3<sup>rd</sup> series of studies in the boys), there were no statistically significant differences between the mean WHR index. This can be explained by the fact that in the early school period, slim children are characterized by narrow hips and slight differences in the proportions of hip circumference in relation to waist size (the WHR is high). Especially in pre-pubertal girls who do not yet have a fully developed pelvis, WHR may incorrectly suggest abdominal obesity. Perhaps, the WHtR index, which determines the ratio of waist circumference to body height, will be of greater diagnostic value for children at that developmental age. As for this indicator, significant differences were noted between the teams from sports and general classes after one year of research for the girls and two years of observation for the boys.

The waist circumference-to-height ratio (WHtR) has recently been suggested as an effective anthropometric index for assessing abdominal obesity [22, 19] correlated with cardiovascular risk factors. The WHtR is also independent of age and sex percentiles in pediatric patients. Studies suggest that WHtR is an easier, faster, and more sensitive screening indicator than BMI and WC for detecting obesity and related metabolic disorders in children and adolescents [3, 16]. The variability of abdominal adipose tissue distribution in girls from sports and non-sports classes aged 9-16 years was assessed by Sudera et al. [44]. Based on these results, it was found that girls from sports classes differed in the mean values of waist circumference, WHtR, and plasma leptin and ghrelin levels (despite the lack of significant differences in height and weight).

There is consensus that body fat and its anatomical distribution are separate or independent factors [9]. Studies on the distribution of adipose tissue indicate that some metabolic disorders show much more direct and stronger relationships with the distribution of adipose tissue than with the degree of adiposity

[20, 5, 39, 29]. According to the authors, the measurement of the thickness of the skin and fat folds (as a measure of fatness independent of the BMI and the circumference of the waist and hips) is of the greatest usefulness in screening for obesity in some age and sex groups of children and adolescents [41]. In relation to our own research, a significant variation was observed in the thickness of the skin and fat folds, as well as in the annual increments between the teams from sports and general classes, which points to a significant influence of physical activity on the shaping of this body component.

Research shows that the students from general classes, compared to sports classes, are distinguished by higher parameters of obesity indicators, increasing the risk of developing metabolic and cardiovascular diseases [8, 33, 25]. The children from general classes, unlike those from sports classes, are characterized by a higher BMI, waist and hip circumference, thickness of skin and fat folds, and WHtR index. Although in the research (at the stage of early childhood education) the average results did not reach the critical values, the gains in these traits were greater in the children from general classes than in the children from sports classes. This suggests negative health effects in the future.

Based on the presented results, it is possible to consider the reason for this phenomenon. Since children and adolescents spend a significant part of their time at school, does the Polish education system create appropriate conditions for physical activity? This problem may be due to the low number of hours of physical education in schools. In the Polish education system, children in grades 1–3 take 3 lessons in physical education per week. What is 135 minutes of physical activity per week compared with the WHO recommendation of 60 minutes a day? It is different in sports classes. Students in these classes had a minimum of 10 lesson hours of sports activities per week, thus fulfilling the WHO recommendations for the hourly amount of physical activity.

In light of the research results and opinions of many teachers, trainers, and parents, the number of hours of physical education is insufficient. Another (yet equally important) aspect is the quality of physical education classes in grades 1–3, which are conducted by early school education teachers rather than qualified physical education teachers. Currently, students are less likely to engage in spontaneous physical activity. Therefore, teachers, trainers, and instructors face an extremely important task: encouraging schoolchildren and youth to participate in organized sports and recreational activities.

### **Limitations**

The limitation of this study lies in the fact that in individual acrobatic classes from different Polish towns and cities, sports training is somewhat different, as is enrolment in these classes. Hence, the training intensity may differ between

individual classes. In general classes, on the other hand, there are people who participate in extracurricular sports activities, and their level of physical activity is high. The limitations of this study include the small number of boys, so the research should be extended to more sports schools from other regions of the country. It also seems justified to conduct a larger number of studies that would show the development of physical fitness of the studied students over a longer period of time.

## Conclusions

In the analyzed period of ontogenesis (7–9 years), the girls and boys from general classes were distinguished by higher parameters of obesity indicators against the background of sports ones, increasing the risk of developing metabolic and cardiovascular diseases. The children from general classes, in contrast to those from sports ones, are characterized by a higher BMI, waist and hip circumference, thickness of skin and fat folds, and WHtR index. Although in the research (at the stage of early childhood education) the average results did not show critical values, the gains in these traits were greater in the children from general classes than in the children from sports classes. This could result in negative health effects in the future. The health and development values of physical activity, and in particular of organized forms of systematically conducted sports activities, remain fundamental arguments in favor of undertaking it at an increasingly younger age. Therefore, it is important to increase the number of hours of physical education in grades 1–3 of primary school.

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### STATEMENT OF ETHICS

This study was conducted in accordance with the World Medical Association Declaration of Helsinki. The study protocol was reviewed and approved by the Bioethics Committee of the Regional Medical Council in Zielona Góra (Bioethics Committee Resolution No. 17/82/2017 of 17th July 2017). All participants provided written informed consent to participate in this study.

### DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interests with respect to the research, authorship, and/or publication of the article *Obesity indicators among 7–9 year-old girls and boys in view of diversified physical activity: a two-year study*.

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**CZĘŚĆ IV**  
TURYSTYKA I REKREACJA



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## Sports tourism as a new form of tourist activity – terminology and history of the concept

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## Turystyka sportowa jako nowa forma aktywności turystycznej – terminologia i historia pojęcia

### Streszczenie

Niniejszy artykuł dotyczy szeroko rozumianego pojęcia turystyki sportowej. Pomimo stosunkowo długiego czasu jego funkcjonowania szersze analizy rozpoczęto dopiero w latach 70. XX wieku. Złożony charakter zjawiska powoduje, że pojęcie to wzbudza wiele wątpliwości, a rozwój badań nad nim z roku na rok uwidacznia się coraz bardziej. Zauważalny jest także wzrost liczby publikacji odnoszących się bezpośrednio do tej tematyki. W niniejszym artykule podjęto próbę uporządkowania i usystematyzowania istniejących dotychczas publikacji naukowych i wyników badań. Artykuł opracowano na podstawie przeprowadzonej kwerendy i analizy literatury dotyczącej zarówno turystyki sportowej, jak i geografii turystyki, czy też pojęć związanych ze sportem. Pod uwagę wzięto źródła zagraniczną oraz polskie. Wspomniany przegląd literatury zaprezentowany został w sposób chronologiczny. W artykule pojawia się również zagadnienie domniemanych początków zjawiska turystyki sportowej, sięgających już czasów starożytnych. Treść uzupełniono o przemyślenia autora. Dokonany przegląd literatury udowodnił, że zjawisko turystyki sportowej

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nie zostało jeszcze w pełni opisane i zbadane, co niewątpliwie spowodowane jest krótkim czasem intensyfikacji rozważań nad tym pojęciem.

**Słowa kluczowe:** turystyka sportowa, sport, turystyka aktywna, kultura fizyczna.

## Abstract

This article deals with the broadly understood concept of sports tourism. Although this term has been used for a relatively long time, it was not until the 1970s that research on the concept and all kinds of considerations began. The complex nature of the phenomenon and the research being carried out all the time result in many doubts regarding this concept. The development of research and reflection on this concept is becoming more and more apparent every year. The increase in the number of publications relating directly to this topic is also strongly noticeable. In this article, an attempt has been made to order and systematize scientific publications and research results that have been developed so far. The article has been prepared on the basis of a search and analysis of literature sources related to both sports tourism and the geography of tourism, or concepts related to sport. Both foreign literature and Polish literature sources were taken into account. The aforementioned literature review was presented in a chronological order. The article also mentions the alleged beginnings of the phenomenon of sports tourism dating back to ancient times. The content has been supplemented with the author's remarks. The review of the literature has proved that the phenomenon of sports tourism has not yet been fully described and researched, which is undoubtedly due to the short time of intensification of research and deliberations on this concept.

**Keywords:** sports tourism, sport, active tourism, physical culture

## Introduction

The last few decades have witnessed dynamic development of tourism. The intensification of tourist traffic connected directly or indirectly with a specific leitmotif of a trip has also been noticeable. This has led to the creation and distinction of several new forms of tourist activity. One of such activities is sports tourism.

It is generally accepted that sport tourism can be defined as making trips related to sport. It can be both passive and active participation in a sports event, as well as visiting sports-related places. However, all aspects relating to the issue of sports tourism raise many questions and debates referring both to terminology and its practical side. Because of this, terminological confusion is noticeable. Moreover, many academics often try to completely negate the functioning of such a form of tourist activity. Major problems concerning the definition of sports tourism also result from the fact that for many years tourism and sport have been considered and researched as two completely separate issues. However, research and observations carried out in the last few decades show that sports tourism is becoming an increasingly important element of tourism development strategies in many regions of the world.

This article attempts to systematize the definitions of sports tourism developed to date. Moreover, an analysis and comparison of definitions of this concept have been carried out. Above all, attention has been paid to the types of tourist activities that create sports tourism and the groups of people practising this type of tourism.

A search and analysis of literature related mainly to the geography of tourism, active tourism, sport and physical culture have been used as a research method. Both Polish and foreign literature was taken into consideration. Additionally, a search of internet scientific articles as well as reports and papers delivered during international scientific conferences was conducted.

## **1. History of scientific research on the phenomenon of sports tourism**

Many researchers believe that the beginnings of sports tourism can be traced back to ancient times, when people travelled to watch the ancient Olympic Games [46]. The beginnings of sports tourism are also seen in ancient Rome [7]. According to many researchers, the Romans used sporting events to distract the inhabitants from deteriorating conditions of everyday life. Another event in which the beginnings of sports tourism can be seen is the first modern Olympic Games held in 1896. According to McFee [32], these games could be considered not only as a simple sports spectacle, but above all as a tourist spectacle. This becomes evident primarily during the opening and closing ceremonies of the Games, which can be confidently regarded as a major cultural event attracting crowds of tourists. In later years, attention was also drawn to the increase in tourism associated with, for example, alpine skiing, tennis, fishing and golf.

The very concept of sports tourism appeared in the literature only a few decades ago. It is a relatively young subject matter. It appeared in the literature only in the 1990s, but research on this issue had begun some 30 years earlier. The growing number of sporting events and an increase in sport-related tourism have aroused great interest among many researchers. This was particularly evident in the English and German literature. Proof of the growing popularity of this phenomenon was, for example, the establishment of a specially dedicated scientific journal "Journal of Sport Tourism". One of the first significant works on this issue was the study *Sport and Tourism* by D. Anthony in 1966 [31].

Many sociologists claimed that one of the main aspects contributing to the development of sports tourism was the systematically increasing popularity of sports events [13]. The competition between individual cities to host sporting events became increasingly apparent. G. Redmond [41] suggested that the development of a global leisure industry based on multiple specializations, refer-

ring to a range of leisure-related services, also contributed to the development of sports tourism. Due to the rather high cost of sports equipment, initially this form of tourist activity was intended only for more affluent people [10, 18]. In turn, J. Kurtzman and J. Zauhar [27] believed that sports tourism developed as a result of greater recognition of the relationship between sport and tourism, as well as increasingly easier travel associated with rapid technological development.

As a research subject, sports tourism was constituted in the early 1990s [36]. However, despite the development of sports tourism, W. Alejziak [1] questions the sense of distinguishing this type of tourist activity. In fact, research on this phenomenon is still in its early stages. According to S. Bosiaci [5], on the other hand, sport is becoming a tool generating increasing financial turnover and is an important element of culture and local economy.

Initially, several researchers made an attempt to shape the profile of a sports tourist. The pioneer of the mentioned solution was R. Schreiber [41], who was one of the first to develop such a profile. According to him, it was a person travelling by air who had played golf, tennis or skied in the last year. Furthermore, it has been highlighted that sports tourists differ in their level of engagement in sport both as participants and spectators [17], [23], [40]. According to P. De Knop [8], a sports tourist was a person who played sports during a holiday. Three years later, the same author stated that it was becoming more common to actively play sports compared to watching sports events. He distinguished, among others, trips directly related to sport (e.g. skiing trips), trips where sport is not the main motive of the trip, but tourists use sports facilities, and trips where tourists participate in informal sports events.

In addition to investigating the profile of the sports tourist itself, the reasons why they engage in these types of tourism activities were also considered. P. De Knop [9] listed three levels of involvement and participation in sport during holidays. C. Hall [20] postulated to distinguish two types of sports tourists - activity participants and hobbyists. The former treat participation in sport as an opportunity for self-expression, while hobbyists focus on competition. C. Hall [20], on the other hand, believed that the two basic behaviors associated with sports tourism are: travelling outside the place of permanent residence to observe sport and to participate in sport. He set rather narrow boundaries for activities that can be classified under sports tourism. Japanese researchers led by H. Nogawa [37] suggested that a person who stays at the venue of a sporting event for at least 24 hours can be considered a sports tourist, while visiting the venue is only of secondary importance. Furthermore, they believed that these tourists can be divided into people attending a sports event, spectators watching a sports event, and sports enthusiasts organizing trips on their own. J. Kurtzman and J. Zauhar [28], on the other hand, decided to describe sports tourism with reference to five basic products: sports tourism attractions, tourist attrac-



tions, sports tourism resorts, tourist cruises, tourist tours and event-type tourist events. As suggested by J. Standevan [43], sports tourism should be understood two-dimensionally. In his opinion, sport can be defined as a cultural experience associated with physical activity, while tourism as a cultural experience of a place.

## 2. The evolution of the definition of sports tourism

A fundamental problem hindering the effective development of a definition of sports tourism has been the differences between sport and tourism. For a long time, these issues were treated completely separately [19]. At the end of the 1960s, it was questioned whether sport was limited only to the rules of a given competition, or whether it additionally included physical activity and competition [30]. The definition of tourism itself was similarly questionable. The question was whether a business trips could be treated as tourism or whether leisure trips could only be classified as such. According to researchers such as R. McIntosh, C. Goeldner and J.R.B. Ritchie [33], such trips can be treated as tourism due to the fact that there is an element of travelling outside the place of permanent residence. In connection with the aforementioned aspects, it has been considered for some time whether sportspersons travelling to matches or sports competitions can in fact be defined as tourists. It has been argued that sportsmen and sportswomen, like other tourists, can have a significant impact on reception areas, as they use, among other things, accommodation or catering services. Doubts have been expressed about the fact that athletes receive financial remuneration for their participation in competitions, which was largely at odds with the WTO definition of tourism.

The first tentative attempts to develop a definition of sports tourism appeared in the 1980s. German and English-language studies predominated. They were quite influenced by two trends prevailing in Europe in the 1970s. The first one was connected with travels to the Mediterranean region, and the second one with the penetration of the Alps [36].

In the case of German language literature, the first was based on concepts such as: *Freizeitsport*, *Sport und Urlaub*, *Sport für alle*. These terms emphasized the recreational and leisure function of sport [11]. J. Schwark [42] noted that during this period there was an increasing number of publications devoted to the areas of sport and tourism, as well as to sports tourism itself. However, they did not find any scientific reference. Among other things, the social character of sports tourism was singled out. In 1995, a work edited by A. Dreyer and A. Kruger was published entitled *Sporttourism. Sporttourismus: Management – und Marketing-Handuch*, partly devoted to market behavior in sports tourism.

In the case of English language literature, the first publications on sports tourism, as in the case of German language literature, appeared in the 1980s. It was then in 1982 that S. Glyptis in her work entitled *Sport and Tourism in Western Europe* distinguished five areas occurring in connection with sports tourism, i.e. sports team groupings, specialized or active holidays, exclusive sports holidays, holidays based on the “sports offer” available and watching sports events [31].

Topics related to sports tourism have also appeared in Polish scientific literature. Qualified tourism was considered one of the most important forms of active leisure in Poland for many years [30]. For the first time, such a term appeared in the 1950s in connection with the activities of the Polish Tourist Country-Lovers’ Society. This nomenclature was introduced due to the desire to jointly define all types of tourism activities, such as cycling or skiing tourism. This term was commonly used for several decades. However, attempts were made to separate qualified tourism from the so-called professional sport containing an element of competition. Many similarities and differences between the notion of qualified tourism in Poland and the notion of sports tourism used abroad were pointed out by J. Merski [34]. He acknowledged that in Polish literature the difference is that it is referred to as qualified tourism. Moreover, G. Bieńczyk [3] stated that many elements connect qualified tourism with recreational sport and the difference between them lies in the aspect of competition which is a feature of recreational sport.

In the 1980s, the term “active tourism” was also introduced into Polish literature. It referred to hobby and recreational activities constituting the main or essential element of a given trip. After some time, this term started to be used interchangeably with the concept of qualified tourism. This led to a kind of terminological chaos.

The described considerations concerning the phenomenon of sports tourism eventually contributed to the development of definitions of this concept. The first ones began to appear in the early 1990s [tab. 1]. C. Hall attempted to formulate a definition of sports tourism in 1992. He highlighted two basic elements based on practising sport and observing it. A few years later, another definition by S. Gammon and T. Robinson [15] specified that this form of tourist activity is based on travelling outside the place of permanent residence. They also indicated the purely competitive nature of sport. A year later, H. Gibson [18] formulated a definition which is still considered one of the most comprehensive ones. Based on it, further definitions of sports tourism are still being created today. Apart from those mentioned above, H. Gibson also specified such an aspect as visiting places closely related to sport. Another definition was developed jointly by J. Standeven and P. De Knop [43]. However, compared to H. Gibson’s definition, they narrowed down the definition to the relationship of sports tourism to sport itself and sport events. T.D. Hinch and J.E.S Higham [21] also made a sig-

nificant contribution to the development of the definition of sports tourism as well as to the research process. On the basis of existing definitions, they concluded that sports tourism is travelling away from the place of daily activities for a limited period of time during which sports are characterised by specific rules and there is a specific element of competition. Therefore, they emphasized the key role of sport in this definition.

The next studies on the explanation of what sports tourism is appeared already in the 21<sup>st</sup> century. Their authors were mainly German scholars. In 2002, W. Freyer attempted to develop two further definitions of this phenomenon. The first one only emphasizes in very general terms that sport is the main motive for travelling outside one's place of residence. In the second one, he clearly differentiated between two groups of tourists practising sports tourism, i.e. active sportspeople and passive sportspeople. In another definition, A. Dreyer [12] stated that sport as a motive is the foundation of travels. As participants in this form of tourist activity, he distinguished among others: sports journalists and people visiting sports museums. J. Schwark [42] emphasized to a much greater extent the mental and emotional aspect associated with sport. He believed that it is very difficult to draw the line between sports tourism and practising sports in a specific tourist space. A little later, Polish researchers developed their own definitions of sports tourism. The first one was created in 2006 by J. Kosiewicz and K. Obodyński [25]. However, they listed the variants shaping this form of tourist activity and it was only a general understanding of the phenomenon's specificity. In another Polish definition, W. W. Gaworecki [16] largely referred to the definition by H. Gibson [18]. He distinguished three basic elements shaping this phenomenon. M. Kozak [26], in turn, focused on tourists' behaviours confirming their genuine interest in sport. A slightly different definition was formulated by B. Bończak [4]. He distinguished the aspects related to amateur and professional sports practice. Compared to other definitions, he eliminated the aspect of visiting sports-related places. In his view, it is even possible to discuss the relations among three concepts in the „triangle”, i.e. sport, tourism, and recreation.

**Table 1.** Development of the definition of sports tourism

Year	Author	Definition	Remarks
1992	C. Hall	A form of tourist activity that can be divided into two main categories – travelling for sport or watching sport.	In the author's opinion, however, this definition does not contain a very clear determinant of tourism in the form of travelling away from the place of permanent residence.

**Table 1.** Development of the definition of sports tourism (cont.)

Year	Author	Definition	Remarks
1997	S. Gammon, T. Robinson	Area relating to the travel of individuals and groups away from their usual place of residence to participate actively or passively in competitive or recreational sporting events.	This is the first time that a motif related to travel has been cited, which, according to the author, makes it possible to speak of tourism at all.
1998	H. Gibson	Travel outside the usual place of residence to engage in sporting activities for recreation or competition, to watch popular and elite sporting events and travel to visit sports-related attractions, e.g. sports venues, sports museums.	One of the most extensive and comprehensive definitions of sports tourism. It shows a wide scope of this concept.
1999	J. Standevan, P. De Knop	Travel based on active or passive participation in sporting events and travel for the purpose of passive observation of sporting events.	In the author's opinion, it shows the narrow range of activities that sports tourism encompasses. It does not fully describe the phenomenon.
2001	T. D. Hinch and J. E. S Higham.	Travel outside the place of daily functioning for a limited period of time, during which sport is characterised by specific rules and there is a specific element of competition.	The authors highlighted the key role of sport in the sports tourism phenomenon.
2002 (1)	W. Freyer	Temporary departure from a permanent place of residence and staying in a foreign place for sporting reasons.	In the author's opinion, this definition does not fully describe the phenomenon of sports tourism either.
2002 (2)	W. Freyer	<ol style="list-style-type: none"> <li>1. Active sports tourism – Leaving one's usual residence and travelling to a destination to actively participate in sport.</li> <li>2. Sports tourism for passive sports-persons – leaving one's usual residence and travelling to a destination to support, watch and experience sport.</li> </ol>	Compared to the first definition, W. Freyer included a distinction between two groups of sports tourists. This makes the definition more accurate in this form.
2004	A. Dreyer	Sports tourism – a form of tourism that includes any form of temporary absence from a place of permanent residence that has a significant purpose in dealing with the subject of sport.	According to the author, the statements contained in this definition do not fully explain the essence of the phenomenon of sports tourism. It does not specify what exact forms of activity can shape this type of tourist activity.

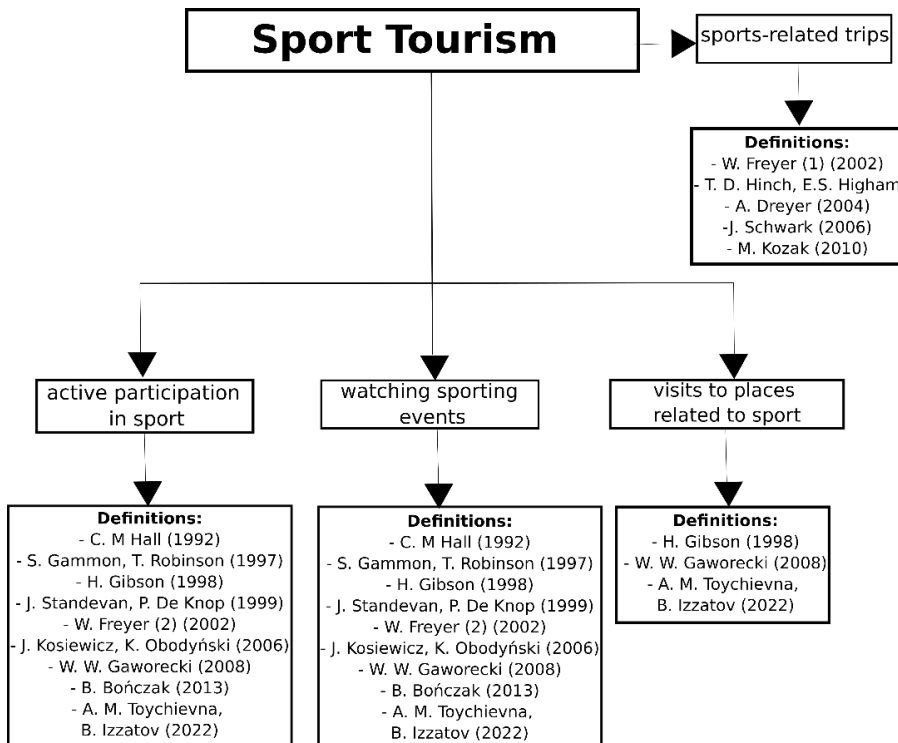
**Table 1.** Development of the definition of sports tourism (cont.)

Year	Author	Definition	Remarks
2006	J. Schwark	The assimilation of sport practised in one's "own" life environment in other circumstances that do not occur in everyday life or the presentation and assimilation of other sports activities in the conditions that do not occur in one's everyday life.	In comparison with the other definitions, it is, according to the author, not very logical and difficult to understand. It does not really explain what sports tourism is.
2006	J. Kosiewicz, K. Obodyński	Sports tourism is a form of tourist activity that manifests itself in three variants: active tourism, qualified tourism and extreme tourism.	The first Polish definition of sports tourism, it can be described as a scientific understanding of the phenomenon. It is based solely on active sport.
2008	W.W. Gaworecki	Travel to participate in sporting activities for recreational or professional purposes, to watch sporting events or to visit sports-related tourist attractions.	The definition refers to a large extent to the definition developed 10 years earlier by H. Gibson. It emphasizes the wide scope of the phenomenon of sports tourism. According to the author, among "Polish" definitions, this one is the most complete.
2010	M. Kozak	A set of behaviors confirming tourists' genuine interest in sport, as well as their personal participation in sports life in the broadest sense.	In the author's opinion, the definition focused on the psychological feelings of tourists towards sport. Practically does not explain the essence of sports tourism at all.
2013	B. Bończak	A form of tourism based on the relation between sport and tourism can be distinguished between the so-called soft sport tourism, i.e. travel to attend a sporting event as a spectator, the so-called hard sport tourism relating to amateur physical activity, and tourism by athletes undertaken in connection with various types of sporting competitions and training.	The definition emphasizes the close relation between sport and tourism. It distinguishes between the recreational and professional aspects of sport. It is largely based on the definitions of H. Gibson (1998) and W.W. Gaworecki (2008).
2022	A. Maxbuba- Toychievna B. Izzatov	Participating in and observing sporting activities, for recreation or competition, as well as observing sport at grassroots or elite level and travelling to visit a sporting destination, such as a sports museum.	Confirmation of earlier considerations and definitions developed by, among others, H. Gibson (1998).

Source: own elaboration based on literature.

The definitions developed so far are mostly based on sport as the main motive for practising this form of tourist activity. The first definitions specified that sports tourism is based on active participation in sport, watching sport events as fans (Fig. 1). These activities were mentioned in the definitions by C. Hall [20], S. Gammon and T. Robinson [15], J. Standevan and P. De Knop [44], T. D. Hinch J.E.S Higham [21], W. Freyer [14], J. Kosiewicz and B. Obodyński [25] and B. Bończak [4]. For the first time, H. Gibson [18] added to her definition visiting sports-related places to the form of activities shaping sports tourism. Following her example, this aspect was also included by W. W. Gaworecki [16]. Some of the definitions of sports tourism, however, were described in a very general and not very specific way, and they regarded only sport-related trips. Such definitions were developed by W. Freyer [14], A. Dreyer [12], J. Schwark [41] or M. Kozak [26] and also A. M. Toychievna B. Izzatov [45].

According to the author of this article, the best and the most comprehensive definition is the one developed by H. Gibson [18]. It broadly describes the essence of the phenomenon of sports tourism and reflects the essence of this phenomenon best.



**Fig. 1.** Activities shaping sports tourism in the definitions developed so far

Source: own elaboration based on literature.

The relatively short existence of the term “sports tourism” in the literature makes many researchers express considerable doubts about its content. Among other things, they wonder whether trips to undertake leisure activities in the broadest sense of the word could be regarded as sports tourism [35]. An excellent example of doubts about the very shape of the definition of sports tourism, as well as about its general functioning, is the discussion published in the 26<sup>th</sup> issue of the scientific journal “Turyzm” in 2016, edited by J. Mokras-Grabowska. Considerable doubts about the issue of sports tourism, in turn, were expressed by L. Butowski [6]. In his opinion, it is difficult to classify professional athletes travelling to sports events as active competitors as tourists. According to S. Bosiacki [5], all trips with sport as the main motive can be recognized as sports tourism. There are also big doubts in case of nostalgic sports tourism, namely visiting places connected with sport. According to W. Aleziak [2], visiting places connected with sport should be regarded as ordinary cognitive tourism.

When analysing the concept of sports tourism, it should also be mentioned that the definition of this phenomenon continues to be expanded and developed by researchers from all over the world. Often the concept is a leitmotif of scientific conferences on sport and tourism. On the basis of the most up-to-date considerations, it has been concluded that sports tourism is a strongly developed and complex phenomenon, also in economic and marketing terms. In this phenomenon, sport is the leitmotif, but elements such as sports event, outdoor recreation, sports management and health and fitness also play an important role [22]. Y. H. Kim [24] also highlighted the strong impact of sports tourism on service sectors such as catering, hospitality and sports and leisure facilities. In 2022, A. Maxkuba Toychievna, together with B. Izzatov, stated that sports tourism consists of participating in and observing sports activities for recreation or competition, as well as observing sports at a basic or more professional level and travelling to visit a sports destination, such as a sports museum. [45]

## Conclusion

A review of the literature on the phenomenon of sports tourism shows that this phenomenon has not yet been sufficiently described and studied. This is mainly due to a relatively short period that has elapsed since the intensification of research on this issue. Although the phenomenon has been in practice since ancient times, it was not until about 50 years ago that it received serious attention. An additional problem is that for many years the concepts of tourism and sport were treated as two completely different issues. This was due, among other things, to the lack of closer cooperation between institutions responsible for sport and those responsible for tourism. Moreover, there was a noticeable

lack of interdisciplinary research into sport and tourism. Conflicts of interest between different institutions and lack of an integrated policy on sports tourism were also highlighted. The author also expressed the opinion that there is not enough research on the relationship between tourism and sport.

The definitions of sports tourism which have been drawn up so far most often point to three elements which shape this form of tourist activity: active participation in sport, watching sporting events and visiting places associated with sport (so-called nostalgic sports tourism).

Sports tourism is currently regarded as one of the most developing areas of leisure time. It is becoming an important part of life for people interested in sport. Scientific research on its economic, marketing and social aspects, as well as those related to sport and physical culture, are of great importance in its development. Many believe that certain sporting events attract far more tourists than beaches, monuments or other tourist attractions. The rapid development of this form of tourist activity and the intensification of tourism connected with sport makes one conclude that this issue will receive further scientific research in the next few decades. Such research will certainly make it possible to systematize and significantly expand the knowledge on this type of tourist activity acquired to date.

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## Social and Economic Potential of the EU Countries' Tourism and Hospitality Industry

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## Spółeczny i gospodarczy potencjał branży turystycznej i hotelarskiej w krajach Unii Europejskiej

### Streszczenie

Obecnie popyt na rynku usług turystycznych ma tendencję do szybkiego wzrostu, co świadczy o atrakcyjności turystycznej krajów Unii Europejskiej i potencjalnej rentowności branży. Zaspokajając popyt konsumpcyjny, branża turystyczna i hotelarska pozytywnie wpływa na rozwój społeczno-gospodarczy. Wpływ ten zależy od specyfiki regionalnej i potencjału poszczególnych krajów. Celem opracowania jest ocena potencjału społeczno-gospodarczego branży turystycznej i hotelarskiej na podstawie aktywności turystycznej w krajach Unii Europejskiej. W procesie badawczym wykorzystano następujące metody naukowe: metodę współczynników, metodę odległości euklidesowej, metodę rankingową, metodę grupowania oraz metodę segmentacji. Zdefiniowano integralny wskaźnik oceny potencjału społeczno-gospodarczego branży turystycznej i hotelarskiej; obliczono integralny wskaźnik oceny potencjału społeczno-gospodarczego branży turystycznej i hotelarskiej w krajach UE; przeprowadzono ranking i grupowanie krajów UE według potencjału społeczno-gospodarczego rozwoju branży turystycznej i hotelarskiej; określono regionalne cechy potencjału społeczno-gospodarczego branży turystycznej i hotelarskiej krajów UE.

**Słowa kluczowe:** przemysł turystyczno-hotelarski, aktywność turystyczna, potencjał społeczno-gospodarczy.

### Abstract

Currently, the demand in the tourist services market tends to grow rapidly, which proves the tourist attractiveness of the EU member states and the industry's potential profitability. By satisfying consumer demand, the tourism and hospitality industry positively impacts social and economic development. This impact depends on specific regional characteristics and the potential of each country. The study aims to assess the social and economic potential of the tourism and hospitality industry based on tourist activity in the EU countries. The following scientific methods were used in the research process: the coefficient method, the Euclidean distance method, the ranking method, the grouping method, and the segmentation method. Indicators for assessing the social and economic potential of the tourism and hospitality industry have been defined; an integral indicator has been calculated to assess the social and economic potential of the tourism and hospitality industry in the EU countries; the ranking and grouping of the EU countries according to the social and economic potential of the tourism and hospitality industry development has been carried out; regional features of the social and economic potential of the tourism and hospitality industry of the EU countries have been identified.

**Keywords:** tourism and hospitality industry, tourist activity, social and economic potential.

### Introduction

Analysis of global trends in the tourism and hospitality industry shows a high level of income and rapid development in this area. As one of the world's largest economic sectors, tourism creates jobs, stimulates export, and improves the lives of millions.

Tourism is traditionally described as a contributor to Gross Domestic Product (GDP) [15], a 1% increase in tourism revenues significantly increases GDP by 0.051%, direct foreign investment by 2.647%, development of the energy sector by 0.134%, and agriculture by 0.26%, and even reduces poverty by 0.51% [19].

Tourism is the sector most affected by the coronavirus pandemic. Experts estimate possible losses in this industry from COVID-19 to be around US\$22 billion [14]. The pandemic affected all branches of this industry: airlines, transport, cruise lines, hotels, restaurants, cultural monuments, travel agencies, and tour operators [26].

The tourism and hospitality industry sensitively reacts to fluctuations in the number of tourists. In 2020, international tourist arrivals (the number of overnight visitors) decreased by 73% [42]. In 2021, the global economic contribution of the tourism and hospitality industry started to recover and was estimated at almost US\$5,812 billion (6.1% of the world GDP), US\$1450.1 billion of which was the contribution of European countries [45]. In 2022, the tourism and hospitality industry was affected by the military conflict between Russia and Ukraine, which led to the shutdown of Ukrainian and Russian airspace and the ban on Russian carriers by many European countries [43].

Until now, the prospects of the tourism and hospitality industry remain uncertain, as life will not be the same as before. It is important to anticipate various opportunities and challenges that the tourism sector can expect in the future [5]. It is difficult to predict the future, so the tourism industry should always be ready to find opportunities in the flow of crisis events [17]. Despite negative external impacts, a study by McKinsey predicts a surge in demand in the tourism and hospitality sphere and shows that travel will recover with double force [21].

The further development of the tourism and hospitality industry is determined by the indicators of the pre-pandemic situation and will depend on the activation of its social and economic potential.

## **Literature review**

The tourism and hospitality industry is the subject of numerous scientific studies and is given considerable attention in the documents of international organizations.

The tourism and hospitality industry is an open system characterized by a high level of globalization, which makes it vulnerable to the damaging effects of economic and political turbulence. Millions of professionals work in this sphere to meet the needs of services consumers (tourists). A tourist is a guest who stays in a country for 24 hours (or more) or spends at least one night in the

host country. If the stay lasts less than 24 hours, a person is classified as a same-day visitor or an excursionist [16].

In modern research, scientists study tourism's impact on accelerating the economic growth of neighbouring countries [23]. Tourism has become a catalyst for the countries' development, therefore, an economic policy aimed at promoting tourism as an expected source of economic growth is important [7].

Globalization is the most noticeable in the strive for a wider geographical presence in international markets, and the pursuit of global branding, positioning, and uniform service standards [44]. International tourism has become one of the most important phenomena in the world economy. It can be defined as the travel of tourists across the countries' borders for a short period for entertainment and leisure, or business purposes. Residents of a certain region who travel only within that region belong to domestic tourism [35].

Tourism influences economy in almost all aspects of society. It is also the most significant catalyst for the economic growth of whole regions, as it acts as a channel for the redistributing gross national product between countries. Tourism is one of the priorities for national cultural and economic development since it actively influences the region where it develops, and its economic, social, and humanitarian foundations [2]. Tourism positively contributes to the quality of life (satisfaction with life and emotional well-being) of the travelling population [18].

The reasons for the economic growth in this area are a whole set of factors, including the increase in the general well-being of the world population, which allows for choosing educational and recreational leisure activities. Other factors include the strengthening of the middle class as the main consumer of tourist services, the development of transport infrastructure, Internet and communication technologies. Tourism has become a global trend and will remain at the top of global demand in the years to come [37]. International organizations analyse tourism development trends to specify the need to increase tourist flows, raise tourist revenues, and increase the number of jobs [41].

The European Union, which was created without internal borders for the free movement of goods, services, and citizens, with a unified taxation policy and deregulated transportation, forms conditions for tourism development. The EU tourism policy includes tourists' protection, ensures their free movement, sets rules for the tourism industry, and promotes tourism and its promotion in less developed EU regions [8]. The European Union tourism policy increasingly focuses on social tourism initiatives that are one of the ways to achieve sustainability in the European tourism economy [24].

There is a great need to analyse the tourism market, supply and demand of services to get a perfect position in the international tourism market and to promote tourism products [36]. At the same time, social and economic development and the concept of the tourism industry are a multidimensional phenom-



ena the study of which is particularly important for the EU countries. As noted by Stec and Grzebyk [33], the level of tourism industry development cannot be assessed with a single universal indicator, it should be seen as a complex phenomenon influenced by many different factors. Scientific publications on tourism demand examine tourist motivations, assess the response of demand to various determinants, and predict future demand levels [31].

Tourism has a wide range of dynamic effects. Tourism development can influence local household funding strategies, the business climate for small business development, local or national economy growth patterns, as well as infrastructure or the base of natural resources at a destination. Tourism also tends to employ a high proportion of women and promote the purchase of products such as food and handicrafts produced by women in the informal sector and thus can improve women's economic status and help overcome gender barriers. Finally, in some places, the tourism sector plays a key role in planning and responding to natural disasters, which often have particularly severe consequences for the poor [2].

The tourism industry is volatile and does not operate in isolation, so the industry is sensitive to changes and trends. Tourism stakeholders must consider trends to ensure prosperity [13].

Hospitality industry workers produce and provide qualified services to their guests. Satisfaction with the quality of the services received leads to a positive image of the city, region, and country and provides an opportunity for the reuse of services [35].

The tourism and hospitality industry has a potential influence on the economy in the future and is also strategically important as a catalyst for other industries and business activities. According to experts, the 21<sup>st</sup> century is expected to become the age of tourism. Tourist activity significantly changes society, and contributes to meeting the needs of the population in spending leisure time in a meaningful way [25].

The success of the tourism sphere in a given country depends directly on the degree of its tourism potential realization, since the tourism potential is a straightforward factor for the formation and development of the country's tourism activity [1, 22]. Although the category of potential is a characteristic of development, it is rather inert and needs to be activated to obtain the desired social and economic effect [2]. The situation is now favourable for meeting tourism demand, as the potential has been activated and the tourism and hospitality industry has started working again, restoring its influence on the socio-economic development of the EU countries.

The review of scientific publications shows the importance of the tourism and hospitality industry for the social and economic development of the EU member states. The reports of international organizations highlight issues that

require efforts on the part of the EU countries to activate the tourism potential. However, the current scientific literature does not assess the potential of this industry based on the tourist activity of the EU countries, which confirms the relevance of this study.

The study is aimed at assessing the social and economic development potential of the tourism and hospitality industry based on the analysis of tourist activity in the EU countries. To achieve the defined objective, the following tasks were set and completed:

- To propose indicators for assessing the social and economic potential of the tourism and hospitality industry;
- To calculate an integral indicator for assessing the socio-economic potential of the tourism and hospitality industry in the EU countries;
- To rank and group the EU countries according to the social and economic potential of the development of the tourism and hospitality industry;
- To identify regional characteristics of the social and economic potential of the tourism and hospitality industry of the EU countries.

## Research methodology

The study was conducted for the EU member states based on open data from statistical sources Eurostat and Statista. The study was based on the year 2019 as it was the last year of full-fledged activity of the tourism and hospitality industry before the pandemic since tourist activity was suspended in the following two years.

The research process was divided into 4 stages.

Stage 1. Selection of indicators for assessing the social and economic potential of the tourism and hospitality industry.

Based on the need to boost the potential of the tourism and hospitality industry in the EU countries, scientists focus on the need to increase tourist flows, generate income and create jobs. Consequently, we used these indicators as a basis for assessing the social and economic potential of the tourism and hospitality industry in the EU countries. In particular, the following statistical indicators were chosen:

1. Arrivals at tourist accommodation establishments by country/world region of residence of the tourist;
2. Expenditure on accommodation by country/world region of destination;
3. Expenditure on transport by country/world region of destination;
4. Employed persons by full-time/part-time activity in the accommodation and food service;
5. Total population of a given country.

Considering the fundamental principles of the official UN statistics [39], based on selected statistical indicators, it is advisable to evaluate tourist activity using the coefficients given in Table 1.

**Table 1.** Tourist activity coefficients

<b>Coefficient</b>	<b>Formula</b>	<b>Legend</b>	<b>Social and economic meaning</b>
Tourist arrival intensity coefficient (Aat)	$Aat = At / Pc$	At – number of tourist arrivals Pc – population of the country	The ability to receive a certain number of arriving tourists. relating to the number of the country's permanent residents
Tourist solvency coefficient (Eat)	$Eat = (Ea + Et) / At$	Ea – accommodation expenditure Et – transport expenditure At – number of tourist arrivals	The ability to pay for the accommodation and food services during every stay
Relative employment coefficient (Ept)	$Ept = Ep / Pc$	Ep – employment of the population in the accommodation and food sectors Pc – population of the country	The ratio of the number of people's employed in the tourist accommodation and food sectors to the total population of the country

Stage 2. Determination of an integral indicator for assessing the social and economic potential of the tourism and hospitality industry in the EU countries and its ranking.

The integral indicator for assessing the social and economic potential of the tourism and hospitality industry in the EU countries is calculated based on the coefficients Aat, Eat, Ept. The Euclidean distance method was used to calculate the integral index, which consists in evaluating the results against a benchmark. This method is based on determining the degree of proximity of the studied objects to the object acting as a standard. This method is described by many scientists, such as Sydsaeter et al. [34], Cleff [4], Schweinzer [29] and others.

The algorithm for assessing the social and economic potential based on the Euclidean distance method involves the following sequence of actions:

1. Create a data matrix that includes a set of Aat, Eat, and Ept coefficients for all EU countries.
2. In each graph with the coefficients Aat, Eat, Ept, determine the maximum element and take it as one.

3. Divide all the elements of each column by the maximum element of the reference country, resulting in a matrix of standardized coefficients ( $x_{ij}$ ), where  $i$  is the number of coefficients,  $j$  is the number of countries.
4. Based on the elements of this matrix, calculate the integral indicator ( $R_j$ ) using the formula (1):

$$R_j = \sqrt{\sum_{i=1}^n (y_{ij} - y_{ij})^2} \quad (1)$$

where

$i = 1, 2, \dots, n; j = 1, 2, \dots, m;$

$x_{1j}, x_{2j}, x_{3j}$  – are standardized coefficients;

$y_{1j}, y_{2j}, y_{3j}$  – are reference coefficients.

5. Rank the integral indicator in the order of decreasing  $R_j$ , as the smallest distance from the reference means the highest value of the rating.

Excel was used to evaluate the integral indicator ( $R_j$ ) and determine each country's position with regard to the social and economic potential of the EU tourism and hospitality industry.

Stage 3. Identification of the groups of EU countries with different levels of the social and economic potential of the tourism and hospitality industry.

The grouping method is proposed to divide all EU countries into groups: those with the largest (group III), average (group II), and smallest (group I) socio-economic potential of the tourism and hospitality industry ( $R_j$ ). The interval for grouping is determined based on the range of variation and the number of groups according to the formula (2):

$$h = \frac{x_{\max} - x_{\min}}{n} = \frac{R}{n} \quad (2)$$

where

$h$  – is the value of the interval;

$x_{\max}$  – is the maximum value;

$x_{\min}$  – is the minimum value;

$R$  – is the range of variation;

$n$  – is the number of groups.

Stage 4. Segmentation of the EU countries to identify regional features of the social and economic potential of the tourism and hospitality industry.

To identify regional characteristics of the EU countries, a regional grouping was carried out under the UN M49 classification [40], four groups were selected, which include the countries of Eastern, Western, Northern, and Southern Europe.

The countries' segmentation of the tourism and hospitality industry's social and economic potential was made by the regions (columns: E, W, N, S) and groups of rating (rows: I, II, III). A matrix consisting of twelve segments is ob-

tained as the result. The percentage of countries in each segment of the matrix was calculated by dividing the total number of countries in each region by the number of countries in each group in that region. Thus, it was possible to reveal the dependence of the social and economic potential of the tourism and hospitality industry on regional characteristics.

## Results

The regional distribution of international tourism revenues coincides with the geography of tourist arrivals. The highest intensity of tourist arrivals is characteristic of such countries as Malta and Austria, the lowest is for Romania and Poland (the value of the Aat coefficient in Table 2).

**Table 2.** Tourist activity in the EU countries\*

Countries. EU	At. (quantity)	Pc. (people. thousands)	Aat	Ea. (Euro. thou- sands)	Et. (Euro. thou- sands)	Eat	Ep. (people. thousands)	Ept
Austria	29702400	8900	3.33	6918545.5	4583592.95	0.39	268.7	0.03019
Belgium	10237091	11500	0.89	4922580.95	3368421.53	0.81	183.3	0.01594
Bulgaria	6963694	7000	0.98	242256.13	266855.51	0.07	182.6	0.02609
Croatia	6134301	4100	1.49	457161.14	503225.42	0.16	107.5	0.02622
The Republic of Cyprus	2931007	1300	2.25	450277.13	594230.67	0.36	37.9	0.02915
The Czech Re- public	14912982	10700	1.39	1610885.3	1293440.76	0.2	194.7	0.0182
Denmark	4983931	5800	0.86	5618835.99	4745335.77	2.08	112.4	0.01938
Estonia	2929312	1300	2.25	530318.48	607150.85	0.39	29.7	0.02285
Finland	9782511	5500	1.78	4256540.21	4708462.54	0.92	97.3	0.01769
France	111683204	64800	1.72	22784201.15	22129562.44	0.3	1020.9	0.01575
Germany	140030631	83100	1.69	59606179.21	48995234.22	0.78	1586.1	0.01909
Greece	23057480	10700	2.15	450285.6	582152.32	0.06	381.9	0.03569
Hungary	9629966	9800	0.98	1026843.09	648389.39	0.17	190.6	0.01945
Ireland	10276932	4900	2.1	3054402.97	2657768.08	0.56	178.1	0.03635
Italy	81050181	60300	1.34	10346545.47	7804204.17	0.22	1480.1	0.02455
Latvia	2237710	1900	1.18	260018.23	292517.94	0.25	32	0.01684
Lithuania	2531865	2800	0.9	470300.2	378777.67	0.34	39.1	0.01396
Luxembourg	794803	600	1.32	907822.48	790599.27	2.14	11.1	0.0185
Malta	1806007	0500	3.61	194167.68	139765.15	0.18	19.5	0.039
The Nether- lands	26549072	17300	1.53	9061432.82	7145785.72	0.61	387.1	0.02238
Poland	25995214	38400	0.68	4557863.75	4104748.81	0.33	403.3	0.0105
Portugal	17732696	10300	1.72	1109154	1167424.57	0.13	320.8	0.03115

**Table 2.** Tourist activity in the EU countries... (cont.)

Countries. EU	At. (quantity)	Pc. (people. thousands)	Aat	Ea. (Euro. thou- sands)	Et. (Euro. thou- sands)	Eat	Ep. (people. thousands)	Ept
Romania	9824816	19400	0.51	949792.56	990642.61	0.2	222.1	0.01145
Slovakia	4628279	5500	0.84	1243477.62	880083.93	0.73	107.9	0.01962
Slovenia	2923791	2100	1.39	554381.73	361927.1	0.31	40.5	0.01929
Spain	94856412	47100	2.01	11436847.54	11426164.26	0.36	1715.4	0.03642
Sweden	21616763	10300	2.1	9087120.58	14159280.24	1.08	164.8	0.016

\* obtained by the authors according to the data Statista (2020); Eurostat (2022a); Eurostat (2022b); Eurostat (2022c); Eurostat (2022d).

Different countries are characterized by the varied solvency of consumers. The results of the calculations show that Greece and Bulgaria receive the least solvent tourists who arrive at the destination countries and spend at least one night in a hotel or a similar establishment, while Denmark and Luxembourg receive the most solvent tourists (values of the Eat coefficient in Table 2).

The tourism and hospitality industry has a positive impact on economic and social development by creating jobs. Malta, Spain, and Ireland are the leaders in Europe with the number of employees in accommodation and food services. Poland, Romania, and Lithuania have the smallest number of employees in these areas (values of the Ept coefficient in Table 2).

The results are shown in Table 3. It indicates the rating of the social and economic potential of the tourism and hospitality industry in the EU countries, based on which countries with the highest and lowest potential are determined.

**Table 3.** Results of the rating assessment pertaining to the social and economic potential of the tourism and hospitality industry in the EU countries

The EU countries	$x_1$	$x_2$	$x_3$	$(y_1-x_1)^2$	$(y_2-x_2)^2$	$(y_3-x_3)^2$	$\Sigma$	$R_j$	Rating
Austria	0.922	0.182	0.774	0.006084	0.669124	0.051076	0.726284	0.85	2
Belgium	0.247	0.378	0.409	0.567009	0.386884	0.349281	1.303174	1.14	13
Bulgaria	0.271	0.033	0.669	0.531441	0.935089	0.109561	1.576091	1.26	18
Croatia	0.413	0.075	0.672	0.344569	0.855625	0.107584	1.307778	1.14	13
The Republic of Cyprus	0.623	0.168	0.747	0.142129	0.692224	0.064009	0.898362	0.95	6
The Czech Republic	0.385	0.093	0.467	0.378225	0.822649	0.284089	1.484963	1.22	17
Denmark	0.238	0.972	0.497	0.580644	0.000784	0.253009	0.834437	0.91	3
Estonia	0.623	0.182	0.586	0.142129	0.669124	0.171396	0.982649	0.99	8
Finland	0.493	0.43	0.454	0.257049	0.3249	0.298116	0.880065	0.94	5

**Table 3.** Results of the rating assessment... (cont.)

The EU countries	$x_1$	$x_2$	$x_3$	$(y_1-x_1)^2$	$(y_2-x_2)^2$	$(y_3-x_3)^2$	$\Sigma$	$R_j$	Rating
France	0.476	0.14	0.404	0.274576	0.7396	0.355216	1.369392	1.17	15
Germany	0.468	0.364	0.489	0.283024	0.404496	0.261121	0.948641	0.97	7
Greece	0.596	0.028	0.915	0.163216	0.944784	0.007225	1.115225	1.06	10
Hungary	0.271	0.079	0.499	0.531441	0.848241	0.251001	1.630683	1.28	19
Ireland	0.582	0.262	0.932	0.174724	0.544644	0.004624	0.723992	0.85	2
Italy	0.371	0.103	0.655	0.395641	0.804609	0.119025	1.319275	1.15	14
Latvia	0.327	0.117	0.432	0.452929	0.779689	0.322624	1.555242	1.25	18
Lithuania	0.249	0.159	0.358	0.564001	0.707281	0.412164	1.683446	1.3	20
Luxembourg	0.366	1	0.474	0.401956	0	0.276676	0.678632	0.82	1
Malta	1	0.084	1	0	0.839056	0	0.839056	0.92	4
The Netherlands	0.424	0.285	0.574	0.331776	0.511225	0.181476	1.024477	1.01	9
Poland	0.188	0.154	0.269	0.659344	0.715716	0.534361	1.909421	1.38	21
Portugal	0.476	0.061	0.799	0.274576	0.881721	0.040401	1.196698	1.09	11
Romania	0.141	0.093	0.294	0.737881	0.822649	0.498436	2.058966	1.43	22
Slovakia	0.233	0.341	0.503	0.588289	0.434281	0.247009	1.269579	1.13	12
Slovenia	0.385	0.145	0.495	0.378225	0.731025	0.255025	1.364275	1.17	15
Spain	0.557	0.168	0.934	0.196249	0.692224	0.004356	0.892829	0.94	5
Sweden	0.582	0.037	0.41	0.174724	0.927369	0.3481	1.450193	1.2	16

Luxembourg, Austria, Ireland, Denmark, Malta, Spain, Finland, Republic of Cyprus, Germany, and Estonia (III group) have the highest social and economic potential of the tourism and hospitality industry, while Sweden, Czech Republic, Bulgaria, Latvia, Hungary, Lithuania, Poland, Romania (I group) have the lowest (Table 4).

**Table 4.** Grouping of the EU countries according to the rating of the social and economic potential of the tourism and hospitality industry

Group	EU countries	Group interval relative to $R_j$	Number of countries in the group
I	Sweden, the Czech Republic, Bulgaria, Latvia, Hungary, Lithuania, Poland, Romania	$\geq 1.2$	8
II	The Netherlands, Greece, Portugal, Slovakia, Belgium, Croatia, Italy, France, Slovenia	1.19-1.01	9
III	Luxembourg, Austria, Ireland, Denmark, Malta, Spain, Finland, the Republic of Cyprus, Germany, Estonia	$\leq 1$	10

The segmentation of the EU member states by the social and economic potential of the region made it possible to see that almost all EU countries located in Eastern Europe fell into Group 1 (I.E segment). This characterizes it as the region with the worst prospects for the development of tourism and hospitality (Table 5). In general, 83.3% of Eastern European countries with the lowest potential for the social and economic development of the tourism and hospitality industry fell into this region. In contrast, 57.1% of Northern European countries fell into Group III (III.N segment), indicating the highest potential for the social and economic development of the tourism and hospitality industry for all countries in this region (except for Sweden, Latvia, Lithuania, which occupied I.N segment).

**Table 5.** Segmentation of the EU countries according to the ratings of the socio-economic potential of the tourism and hospitality industry depending on regions (UN M49 classification)\*

Groups of countries/ Regions	E	%	W	%	N	%	S	%
	Eastern Europe		Western Europe		Northern Europe		Southern Europe	
I	The Czech Republic Bulgaria Hungary Poland Romania	83.3	—	0	Sweden Latvia Lithuania	42.9	—	0
II	Slovakia	16.7	The Netherlands Belgium France	50	—	0	Greece Portugal Croatia Italy Slovenia	71.4
III	-	0	Luxembourg Austria Germany	50	Ireland Denmark Finland Estonia	57.1	Malta Spain	28.6
∑. %	x	100	x	100	x	100	x	100

\* the Republic of Cyprus is not included as according to the UN M49 standard it belongs to the region of Western Asia.

The EU countries situated in Western and Southern Europe fell into segments II.W, III.W and II.S, III.S, and none of these countries are in I.W or I.S segments. This means that the countries of Western and Southern Europe have high potential and are very similar in terms of its level (Table 5).



## Discussion

The tourism potential analysis is carried out using various scientific approaches and methods, some of them based on tourist questionnaires [6], a survey of management personnel [27], the use of SWOT analysis [38], expert assessments [46], the study of resources [20]. There is no single research design, and each method has its advantages and disadvantages.

The proposed method of assessing tourist potential is based on quantitative assessments with the use of statistical data and the calculation of an integral indicator for assessing the social and economic potential of the tourism and hospitality industry in the EU countries. A similar approach to studying the potential of the tourism industry based on the calculation of an integral indicator is used by Shpak et al. [30]. In this research, they determine how tourism potential is influenced by a group of direct external factors: labour resources, marketing policy, tourist activity management system, external infrastructure, environmental quality, general image of the region. Moreover, the results of their research prove that the integral indicator of the tourism industry potential can be used to characterize regional features of tourist attractiveness. In contrast to our understanding of tourism activity ratios, which form an integral indicator for assessing the socio-economic potential of the tourism and hospitality industry, Yıldız and Gurhan [47] argue that it is alternative tourism activities that have a significant impact on tourism potential and employment in tourism.

Stec and Grzebyk's [33] approach to social and economic development and the tourism industry as a multidimensional, complex social and economic phenomenon influenced by many different factors is justified. The rankings of the EU countries and defined typological groups of countries reveal the variables that have the greatest influence on the classification of the EU countries by the level of social and economic development and the level of development of the tourism industry. As scientists note, the quality of research of the generalizing indicator as an integral indicator for assessing the social and economic potential can be increased by using various statistical and econometric methods or methods of comparative analysis. This gives the opportunity not only to deepen the assessment of the studied phenomena but also to obtain more objective results [33].

The countries segmentation by regional characteristics enabled us to identify which of the EU regions have a higher or lower potential for the tourism and hospitality industry development. The Western and Southern Europe countries have similarly high potential and prospects for tourism and hospitality development, but most Eastern Europe countries have the lowest potential. Such results correlate with the methodology and conclusions made by Alimov et al. [1], which justifies the cluster approach for a better understanding of the conditions, problems, competitive opportunities, and advantages of the tourism industry.

Our results support the authors' opinion that clustering is reasonable as an organizational tool for developing a strategy and future tourism development projects in the European Union. A similar approach to the use of cluster analysis for the study of tourism in the EU is applied in the research results of Bulin [3], Roman et al. [28]. The scientists prove that the results of cluster analysis can be used in effective planning and decision-making to support sustainable tourism development in a specific EU country or a group of countries.

## Conclusions

The tourism and hospitality industry in the EU countries has a different level of development. The comparison of the tourist activity coefficients proposed by the authors showed the differences between the countries in terms of tourist intensity, tourist solvency, and relative employment in the field of accommodation and food.

An assessment of the socio-economic potential of the tourism and hospitality industry has produced a ranking that places each EU country on a scale. The assessment highlighted groups of countries with different socio-economic potential in the tourism and hospitality industry. The study showed that Luxembourg, Austria, Ireland, Denmark, Malta, Spain, Finland, the Republic of Cyprus, Germany, and Estonia have the highest potential, while Sweden, Czech Republic, Bulgaria, Latvia, Hungary, Lithuania, Poland, and Romania have the lowest.

Regional features of the social and economic potential of the tourism and hospitality industry of the EU countries were identified, which showed that the countries of Eastern Europe lag behind other regions in terms of the potential for the development of the tourism and hospitality industry.

The obtained results can be useful for the European Economic and Social Committee in the packages of social and economic proposals for the Council of Europe preparation. Such approaches would draw attention to the need to support the tourism and hospitality sector in Eastern European countries and adjust the mechanism for the distribution of EU financial aid funds. This will make it possible to influence the improvement of social and economic indicators of the tourism and hospitality industry in countries with low potential and solve the issue of uneven development of the EU countries in general.

From the perspective of further research, it would be useful to study the social and economic potential of the tourism and hospitality industry in other countries of the world and compare them with the countries of the European Union.

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**BIOGRAMY, DYSKUSJE, POLEMIKI, RECENZJE,  
PRZEGLĄD WYDAWNICTW, SPRAWOZDANIA**





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**[rev.] Andrzej Pawłucki, *Pedagogia olimpijska. Homo physicus*, Oficyna Wydawnicza “Impuls”, Kraków 2022, pp. 324**

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Professor Andrzej Pawłucki, a distinguished philosopher and physical culture educator is an author of numerous publications, appreciated both in Poland and abroad. The publisher’s note tells us that his latest monograph, *Pedagogia olimpijska. Homo physicus* (*Olympic Pedagogy. Homo physicus*), is the third part of a trilogy, whose previous components were the books entitled *Nauki o kulturze fizycznej* (*Physical Culture Studies*) (2015) and *Sport, asceza, miłość* (*Sport, Asceticism, Love*) (2019). The Author undertook an ambitious task of creating a pioneer work showing in an original way the value of the Olympics and the need of multi-degree Olympic education. He has fulfilled the aforesaid task in an excellent way.

The first chapter refers to the period of the pandemic during which the book was written. The time of the most intense, forced isolation had a very negative impact on most people’s health and well-being; it also evoked a certain longing for participation in competitions. Lack of possibility to experience sports emotions live let many spectators really appreciate the value of sport. Andrzej

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Pałucki defines that time as a state of limbo, where the will to develop one's body weakens and a man degenerates physically. People become the epidemic's prisoners, unable to vent out their internal tension. The Author describes online education during a long school lockdown stating rightly that "lack of action is lack of existence" (p. 38), hoping at the same time that pandemic isolation is not irrevocable and losses can be compensated for. Likewise, his reflections on the nature of a bodybuilder's functioning are interesting as he describes that sports-person as "a prisoner at his own request" (p. 38).

Two following chapters are an intriguing story about cultural origins (frequent references to religions) and multifaceted social identity of *homo physicus* – an individual devoted to physical culture. This identity is shaped by training, previously taking a form of war practice (the Author gives many examples), as well as by everyday choices. However, Pałucki remarks that "a warrior is not morally equal to another warrior" (p. 95) and *homo physicus*, being a defender of the right cause, shall constitute *alter ego* of a homicidal soldier" (p. 96) (in this extract we find an interesting analysis of fascist Germany). Historical examples also evoke the knight figure. Other aspects discussed in that part are, for example, cultural context, physical work over one's corporality, the role of a coach, participation in various groups, play, institutionalization, morality, friendship, law and sports customs, respect, justice. The Author draws our attention to ethical issues (natural law), skillfully directing his narration at contemporary sport. At the same time, he describes numerous absurdities and distortions of an ideal of fair competition, like in a sub-chapter entitled *Oszustwo transseksualistów* (*Transsexuals' Cheat*) devoted to the presence of transsexualism in sport. These reflections become part of the image of events we have been dealing with for a long time now; as, like in other areas of life, also in sport, the forces of "progress" fight with the forces of "reaction". The aforesaid monograph clearly calls for sport free from ideological pressure which we keep experiencing with growing intensity.

The next chapter is devoted to Himalayan mountaineering, an area beyond the mainstream of sports rivalry. Pałucki explains the difference between the Olympics and Himalayan mountaineering, writing about the origins and philosophy of both movements. A Himalayan mountaineer "exists beyond communitarian society" (p. 210), becoming not a sports-person but a climber of mountain peaks, an extremist in a certain sense of the word, and even "a poor wretch" ("they make their nearest and dearest worry and head towards inertia or premature death" (p. 210). Triumph is always paid with high risk of death. The Author emphasises that although a Himalayan mountaineer is clearly alienated, they still care about morality of dignity. It is illustrated with contrasting examples (Aleister Crowley, Denis Urubko).

In the fifth chapter of *Pedagogia olimpijska (Olympic Pedagogy)*, Pawłucki draws the reader's attention to the matter of Olympic Truce, conducting an analysis based on his own experiences and historical context. It refers to selected Olympic Games, showing "the limits of their causality in achieving social peace" (p. 228), and hence the utopia of international cooperation. There is a very valuable analysis of insincere policy (in the context of particular Olympic Games) of the Soviet Union, the country which used the Olympics "to widen the area of influence pertaining to the ideology of international socialism" (p. 232). The Author presents his path to understanding the spirit of the Olympics, recalling inspiring publications of researchers such as Zbigniew Krawczyk or Andrzej Tyszka. He discusses the issue of amateur and professional sport as well as the question of dangers of liberalism. What is particularly essential, he calls for introducing Olympic pedagogy into education by creating an institution of mouseion (where students could get immersed into Olympic reality), gymnasium (acting and intellectual stage) and stadium (place of fair competition) as the space of Olympic pedagogy. These institutions could serve as a place of an efficient process of cultural initiation.

The last chapter is devoted to the question of a political aspect of Olympic Games, where the Author pays a lot of attention to various aspects of ancient Olympic Games, including their researchers, addresses the question of Olympic Truce, Olympia's political character and politicization of Greek runners – exceptionally resilient bearers of good news such as Pheidippides and other "heroic unknown soldiers" (p. 282). Oftentimes, the Author also refers to our contemporary times only to conclude, "Since the reign of king Iphitos to the times of de Coubertin, politics and Olympics have gone hand in hand" (p. 286). It is completed by Pawłucki's very interesting and vivid memories concerning the political character of sport at the times of communist dictatorship, precious remarks on the violent nature of liberalism, threats of *gender* ideology in sport and remarks on republicanism (republic as "a state of communitarian good and social solidarity") (p. 303) and monarchism ("in monarchy there are resources of cultural capital") (p. 306).

One can feel concern about the future of sport and the world emanating from the book pages (among all, "pathologies triggered by gender ideology" p. 308), but a careful reader shall also discern the Author's hope like sunbeams breaking through the dark sky. We get assured that sport can still be the source of physical and moral beauty, that it can bring comfort and inspiration. An Olympian's goal is the renewal of the world via fulfilling moral tasks. They are to introduce peace and call for the culture of friendship. One should just bear in mind to stay faithful to their cultural traditions. It is helpful to draw from noble sources, appropriate education and to avoid evil and stupidity ("How fantastic it

is that I can run. It is useful in running away from evil, and even more when one runs away from idiocracy and useful idiots” p. 312).

One should also pay attention to historical themes presented by the Author as they constitute a perfectly presented background of the conducted analysis. It lets us see more or less known events from the history of sport in a new light. The discussion includes, among all, the activity of Pierre de Coubertin, the character of particular Olympic Games, for example, the ones of 1956 (the famous water-polo match between Hungary and the USSR), and the ones of 1980 or 1984; there are sports heroes both from ancient times and more contemporary ones, e.g. Spiridon Luis, Jim Thorpe, Irena Szewińska or Leszek Blanik. The text is enriched, which is very precious, with educative, personal stories from the Author's past, referring to particular moments of Polish history. It makes the narrative widespread and full-blooded. Personally, I really appreciate the extract in which Andrzej Pawłucki, as a young lecturer, boldly calls for recognition of Florian Znaniecki, a distinguished scientist sentenced to oblivion by communists. The Author's school memories about lack of any reference to Olympic Games (their history but also their rich heritage, namely Olympic poetry) in contemporary school curriculum (“In Polish secondary schools the Olympics were relegated to the zone of oblivion,” p. 230) are also thought-provoking. How relevant is the appeal to give the Olympian philosophy its due place at school! What is important is the fact that Pawłucki also refers to the latest history, emphasizing the potential and role of the Olympics in our times full of uncertainty, marked by Russia-induced war with Ukraine and a widely-understood crisis.

The book abounds with numerous statements that give the reader a lot of food for thought even if they are taken out of context. Let us quote some of them: “An Olympian is the opposite of a communist” (p. 234), “communism is responsible for evil in sport” (p. 257), “socialism is anti-culture” (p. 295), “in case of sport, dictatorship of equality has begun to liberalise morality” (p. 244), “liberalism as an antithesis of the Olympics is antihuman” (p. 246), “the modern Olympics are a realistic philosophy of moral comfort” (p. 254), “the Olympics are a realistic philosophy, they are not, in any event, an intellectual illusion” (p. 258), “Olympic sport creates order” (p. 256), “body immortality is not the man's destiny, but in their mortal life corporeal nature is known to them and ascribed to them...” (p. 314); and last but not least “he who makes love the reason of their existence as *homo physicus* is wise” (p. 119).

Concluding, *Olympic Pedagogy* is an exceptionally valuable publication, written with great flair, making the reader familiar with an intellectually complex nature of physical culture. Doubtlessly, it is a powerful call for changes regarding the way the philosophy of the Olympics is perceived and propagated. Apart from its unquestionable factual value, it is worth paying attention to the Author's exceptional erudition (which is not so frequent in case of contemporary scientific

publications), which makes the reading process a real pleasure. The monograph should attract the attention of representatives of all the disciplines dealing with physical culture, sportspersons, and, above all, future and present sports educators, including coaches and teachers. The publication shall be also of interest to sport lovers looking for something more than merely entertainment and wishing to broaden their horizons. It is a book that might make one change their perception of various aspects of physical culture, making them its more aware beneficiaries. Thus, let us hope the book will be translated into English so that foreign readers can get acquainted with it as well.







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**[rev.] Renata Urban, *Tradycje sportów konnych w Polsce do 1939 roku*, Wydawnictwo Naukowe Uniwersytetu Szczecińskiego, Szczecin 2022, pp. 393**

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In 2022, the Publishing House of University of Szczecin, within the framework of the series *Dissertations and Studies*, published a long-awaited book by prof Renata Urban entitled *The Tradition of Equestrian Sports in Poland up to 1939*. The monograph counts 393 pages, including 312 pages of the descriptive part, and is divided into 8 main chapters followed by the ending, appendix, bibliography, list of abbreviations, name index, list of photographs, drawings, tables and annexes, as well as abstracts in Polish and English. The author, Renata Urban, doctor habilitatus, professor of University of Szczecin, is a well-known and highly-valued historian of physical culture in Poland, and as the Head of the Historical Department of the Polish Society for Physical Education she actively promotes the knowledge of the history of physical education, sport, tourism and recreation. Specialising in the matter of the development of horse riding in Poland, she is the author of several dozen studies, many of them of a pioneering nature. In that way, she has saved many important events and facts from the latest history of physical culture in Poland from oblivion. No one has ever scien-

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tifically explored on such a scale the area of equestrian sports that are so deeply rooted in centuries-old Polish national tradition and preserved in national culture and art. Renata Urban commenced these studies and coordinated their progress till mid-90s of the previous century.

The publication in question crowns many years of the Author's research on the history of horse riding on the Polish territory up to 1939. It recapitulates numerous cases of archival research, library and institution studies initiated at the turn of the 20<sup>th</sup> and the 21<sup>st</sup> centuries. It is reflected in an exceptionally vast source database and literature, logically ordered and carefully combined in the bibliography. Archival materials coming from 17 archive centres, museums and libraries are especially impressive. Among all, they were gathered from the following institutions: the Central Archives of Historical Records in Warsaw, the National Digital Archives in Warsaw, the National Archives in Bydgoszcz, Cracow, Poznań, Toruń, Warsaw, the Central Military Archives, the Polish Army Museum, the Museum of Sport and Tourism, the Museum of Hunting and Horsemanship, the Municipal Museum in Grudziądz. The use of numerous printed sources, source publications, 47 newspaper and magazine titles, not to mention evoked sources (narratives) and memories shall certainly gain our recognition. The Author also used 130 works of literature and over 40 articles of occasional publications. Therefore, the evaluation of source materials and literature used by R. Urban is highly positive. She has not omitted existing historical artefacts and information on equestrian sports in Poland retained in written sources within defined chronological frames.

As a consequence, a few years of working on the text resulted in a monograph, long awaited in scientific circles, based on a factual arrangement frequently occurring in works discussing the history of physical culture, and aptly used by the Author. The book begins with the *Introduction* of a methodological nature, which offers the reader a necessary introduction into the subject matter, assesses written sources, gives a detailed report of the research conducted, justifies the structure of the whole publication and announces its particular sections. It presents a clearly defined goal, which, "[...] was to synthetically present the development and achievements of equestrian sports in Poland in the years 1918 – 1939. Particular attention was drawn to the role played by the Polish army, especially its cavalry and horse artillery, and the Polish Equestrian Federation [...]. Reconstructing the history of horsemanship in Poland was not the only challenge of the research. It was equally difficult to show the mechanisms behind its development in the period of the Second Polish Republic, to explain the influence of European horsemanship systems on the development of the Polish school, its importance for success achieved by Polish horseriders [...]."

In the first chapter, R. Urban reconstructs the rich history of horsemanship in Poland. She writes on a grand scale about knight tournaments, horsemanship

in education, activity of equestrian associations and clubs, achievements of the "Sokół" Gymnastic Association in the area of equestrian sports, not to mention an entirely unknown fate of Polish horseriders and horse breeding during the First World War, making the picture of this tradition complete in this way.

The second chapter presents the conditions for equestrian sports development in the Second Polish Republic. It takes into account the development of the Polish army up to 1921, the policy of the Ministry of Military Affairs towards horsemanship, reconstruction and development of horse breeding in Poland, training base and sports facilities, and all the trainers and instructors whose importance should not be underestimated. All those issues were presented in an attractive way, displaying the Author's vast knowledge of the subject matter.

The content of the third chapter concerns educating horseriders in horse riding units of the Polish Army up to 1939. It includes the origins and development of horsemanship training in the Cavalry Training Centre in Grudziądz, the Cavalry Training Centre in Toruń, and horse riding units of Border Defense Corps and State Police. It is very interesting to read about numerous pioneering arrangements and facts presented for the first time.

In the following chapter (the fourth), the Author looks back on European traditions of horsemanship training, which had an impact on the Polish system naturally drawing from training theory and practice of other countries. She presents the manege school (Vienna, Saumur, Hanover, Saint Petersburg), and the natural school (Pinerolo, Tor di Quinto). Against this background, she writes about Polish horsemanship school developed in the Cavalry Training Centre in Grudziądz.

The fifth chapter introduces the reader to the origins and activity of the Polish Equestrian Federation, which, as the Author proves, played the key role in propagating this discipline in Poland and abroad. All the aspects of this very important programme activity of the Federation were brought to light. What is more, it was shown how important the Polish Equestrian Badge, established by the PEF in 1935, was for the development of horsemanship.

Chapter six contains a detailed characteristics of equestrian sports competition. R. Urban makes the reader familiar with disciplines (competition groups) included in that vast area. Both at length and in an interesting manner, she presents dressage contests, jumping competitions, eventing, horse racing and riding, skjöring and ski-skjöring, carriage driving and polo.

The seventh chapter wins the reader's admiration as it documents Poles' participation in local and international equestrian sports contests. In four, properly created sub-chapters, the Author introduces her readers to the Riding Championships of the Polish Army – Militari, Horse Riding Polish Championships, international horse riding contests, and horse riding competitions during summer olympic games.

The last, eighth chapter presents a dramatic fate of Polish horseriders – olympics participants and sports horses during WWII and afterwards, till the end of the 20<sup>th</sup> century. Fragmentarily, the story goes beyond the accepted time framework, yet, at the same time, it creates a historical post scriptum of the title subject matter. It primarily concerns complex, post-war life stories of distinguished horseriders.

The decriptive part finishes with an ample *Ending* written in a form of an accurate recapitulation and historical evaluation of the events placed in the monograph. The Author made a concise and competent assessment of the historical development of equestrian sports on the Polish territory under the partitions and during the Second Polish Republic. She compared and contrasted two most important facts in the historical process of horsemanship development in Poland up to 1939. She distinguished the main stages of equestrian sports development. She demonstrated the contribution of this discipline into the achievements of Polish sport. Finally, she brought back highly distinguished figures of horse riding. As she aptly wrote, “The rich and centuries-old tradition of horse riding in the Polish nation and Poles’ love for horses constituted a very good foundation for the development of equestrian sports in the Second Polish Republic. [...] Horse riding belonged to the most dynamically developing sports disciplines in the Second Polish Republic.” Having read the monograph, it is hard to disagree with such an evaluation. In every aspect, this part of the work stands out and serves its purpose.

The 28-page *Appendix* took a classic form, comprising 17 entries, including unique photographs of the first publications dealing with horse riding and valuable documents illustrating the activity of the Polish Equestrian Federation, the most important sports results (local and international rank), lists of Polish horseriders – country representatives, and even lists of the best sports horses. The appendices were worth including in the monograph due to their important historical value.

The bibliography developed by R. Urban according to the traditional pattern, with the division into sources and monographs deserves a positive evaluation. The bibliography gathers and properly orders all used source materials and professional literature. Moreover, numerous notes show the Author’s implementation of scientific tools in a positive light. Altogether, the text includes 611 references, mostly of a documentary (bibliographic) nature, but also factual ones that superbly complement the main text of the reviewed book.

The photographs accompanying the text, certainly the result of laborious preliminary archival research, deserve a special mention, too. The Author prepared 98 positions that vary thematically. They present various faces of the discipline in question, recorded in the lens of an old camera. There are horseriders (often on horseback), figures of PEF activists, barracks, sports facilities and

equipment, and others. Some photographs have never been published before, which increases their historical value. A similar thing can be said about interesting drawings and painting reproductions that accompany the text. Without doubt, they increase the value of the reviewed publication.

The book includes a useful name index prepared by R. Urban and the list of used abbreviations. We can also find an abstract in Polish and English.

In conclusion, I would like to state that it is rare to find a publication of such maturity, whose almost each aspect is taken care of in great detail. The reviewed monograph, belonging to the best ones recently published in our country, enjoys such a factual and formal value. One of the oldest, traditional sports disciplines in Poland finally receives an extensive historical monograph, meticulous and exhaustive as far as each aspect of horse riding development in Poland is concerned. An earlier publication by prof Maciej Łuczak, *Fencing in Poland in the years 1918–1945*, presented the development of the discipline whose traditions go back to the period of the Commonwealth. It is also worth locating the monograph by Renata Urban among those publications dealing with the history of traditional sports disciplines in Poland. It deserves our praise for a few reasons. Firstly, it shows an important subject matter from a historical point of view, referring to Polish cultural traditions, which has not been discussed in any monograph before. Secondly, the Author prepared the published text with exceptional meticulousness so that it reaches a high editorial level. Thirdly, the reviewed book has an educational value and can serve not only as a scientific work but also as a valuable didactic aid. Finally, the publication of the monograph naturally puts an end to the research concerning the history of horsemanship in Poland up to 1939, which constitutes a good foundation for researching the next period in the development of this discipline. Additionally, the monograph has an international dimension as it contributes to European knowledge of Polish centuries-old tradition of horsemanship.





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## **The action-reaction rule vs. compromise solutions: About a musical movie in the context of implications for sports coaches and psychologists (review of *The Chorus* directed by Christophe Barratier)**

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One of the most important cultural events of 2022 in Poland was undoubtedly the 16<sup>th</sup> Henryk Wieniawski International Violin Competition – the oldest violin competition in the world, commemorating the Polish virtuoso and composer, Henryk Wieniawski (1835–1880), taking place every five years in Poznań. Taking a perspective of the capital of Greater Poland (Wielkopolska) region, one should also appreciate a huge cultural heritage of the whole region, beginning with numerous achievements of Poznań Boys' Choir, established by Jerzy Kurczewski in 1945, which, currently under the supervision of maestro Jacek Sykulski, is flourishing all the time. Listening to world-known virtuosos and the most distinguished choir singers contributes to the development of musical interests, and what follows, to reaching for not only the canon of professional literature devoted to classical music but also for films, both documentaries and feature

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movies. One of such cinematographic works, certainly worth recommending is *The Chorus* (Fr. *Les Choristes*), released in 2004, whose script was written by Philippe Lopes-Curval and Christophe Barratier who also directed the movie.

The film commences with a depressing moment of the main protagonist's mother's death. Pierre Morhange (whose role was played by two actors – Jean-Baptiste Maunier presented Pierre in his youth, and Jacques Perrin acted Pierre in his adulthood) is a distinguished composer who grew up in *Fond de l'Étang*, a boarding school for troubled children. Fifty years after leaving the school walls, his school mate, Pépinot, knocks at his door. He hands him over a gift, namely a diary of their head teacher who was their music teacher too. It was Clément Mathieu whose role was played by Gérard Jugnot. The teacher implemented totally different educational methods, standing out from the rest of pedagogical staff led by the principal, who favoured the “action-reaction” rule aiming at immediate and merciless punishment of students' misconduct. The first crisis situation witnessed by the new teacher was a student's prank resulting in a serious eye injury of one of the teachers. In response to that, the principal gathered the whole school community and urged the guilty student to own up the prank. As no one stepped out, the new head teacher was forced by the institution's manager to pick up a random boy for symbolic punishment of the whole group. He chose Boniface, one of the best students. The following days were punctuated by other pranks, which the music teacher tried not to exercise any repercussions for, implementing compromise solutions instead. Music, the head teacher's greatest passion, turned out to play a key role in changing the students' behaviour. It made the principal give his permission to conduct an experiment consisting in selecting the best voices and creating a boys' choir practising its musical skills every day. Pépinot, an orphaned child, who waited for his parents' arrival every Saturday at the school's gate, became the head teacher-conductor's assistant as he did not know even one song. What is more, Mathieu offered him special protection against a new student who tried to bully him into paying for the possibility of sleeping in the room with other boys. He nipped that practice in the bud and ordered the culprit to change his behaviour radically. Thus, we can see that the music teacher was persistent, patient, ready to offer help in each and every situation and treated all his students with understanding.

Aforesaid Pierre Morhange, called by other staff members “the devil with an angel's face”, was the most vocally talented student. He was staying in the boarding school as his mother, who visited him as often as she could and who wanted the best possible future for him, had to work. Noticing Pierre's exquisite musical talent, the head teacher decided to educate him professionally so that he could continue his development in a musical conservatory in Lyon, where he would be taught by the most distinguished musical experts. It met with great approval of the boy's mother, yet the boy himself became jealous of the



teacher's contacts with his mum. Meanwhile, one of his schoolmates stole from the school safe all the money put aside for various bills, which made the principal doubt the efficiency of Mathieu's teaching methods and education via music. As a consequence, he decided to liquidate the choir. However, the indefatigable music teacher moved the choir's activity to the symbolic underground, teaching his students how to sing in the evening. Moreover, taking into account Morhange's earlier misconduct, he punished him by not letting him practise his solo vocal parts with the whole choir as he had used to do before.

Meanwhile, the news about the choir's activity spread and reached the school benefactresses whose representative, the countess, expressed a wish to visit the boarding school and listen to the boys' recital. Surprised by the fact that Pierre Morhange was standing aside and not participating in the performance with the others, she posed a question about the boy's punishment. The head teacher explained that it was "a special case", and in the middle of the show he allowed the student to perform his solo parts mastered beforehand. The music teacher was firm as far as separating the leader from the group was concerned, but he did it gently, for the student's good, so that he could understand the situation and was able to appreciate his opportunity to perform with the other choir singers again. Unfortunately, all the laurels for the choir's activity went from the countess to the school principal and not to its real creator – the head teacher.

During the absence of the institution's manager, when the school was under the music teacher's care, a fire which consumed a part of the building, was set by one of the most troublesome students. At that time, the other boys were outdoors playing hare and hounds. Yet, the principal reacted harshly to the whole incident, which he regarded as ignoring safety rules within the school's walls, and decided to fire the head teacher. A heated exchange between the two men is particularly worth mentioning. The head teacher is called "a poor musician and minder" and the principal does not allow him to say goodbye to his students. Yet, the boys could not let go and to thank Mathieu for his approach and his heart flew numerous paper airplanes with hearty words of farewell out of the window. Sneaking out of school, Pépinot came to say goodbye in person as he wanted to leave the place with his teacher on the same bus. Initially, Mathieu ordered the little one to come back to the building, but after a brief consideration he took Pépinot with him. Mathieu was fired on Saturday, so Pépinot's dream to leave school on that day came true.

Shortly before the end of the film we learn that after Mathieu's dismissal, Pierre Morhange left to live with his mother who was abandoned by an engineer she had met in Lyon before. The student finally got admitted to the musical conservatory. As for the school principal, he was also dismissed after a while, and

the fired head teacher continued to teach music in other institutions till the end of his career.

On the one hand, the film is pervaded by sadness, resignation and melancholy. In the light of the student-teacher relations, there is a big dose of irritation and helplessness, one can also notice ever-present indifference, vulgarity and schematic character. On the other hand, the film has a certain hidden message, and through the character of Mathieu it offers several positive aspects, beginning with equal treatment, good and humanity emanating from the bottom of one's heart in the form of empathy and willingness to help the weaker and those in a worse or more difficult life situation. The conclusion drawn from the movie is that as far as educating the young is concerned, good, hope and sensitivity shall win over methods based on violence, chaos and aggression. In case of educating children and teenagers, one should particularly remember about paying attention to instilling appropriate values, together with the feeling of acceptance and safety. Despite different behaviours and life scenarios, which, in case of the boys portrayed in the film, were often painful and exceptionally difficult to comprehend, everyone deserves a chance to change. That is why thanks to the head teacher's appropriate approach, thanks to that paragon of virtue, contrary to the school principal presented as the incarnation of evil, the students started to believe in their capacities of making even their most secret dreams come true once they had strong motivation to change.

The message coming from that almost twenty-year-old movie can be sufficiently used in the profession of a psychologist specialising in the subject matter of emotions and motivation. Due to the fact of showing many practical things, the aspects displayed can be particularly inspiring also for sports coaches. The film shows examples when it is worth letting go and when it is more beneficial to invite one's charges to cooperate or to encourage them to practise more intensely. It even shows when to be firm during the realization of particular training units. The essence of these activities should be showing sportspersons the values that should be the most important for them in the context of their training and participation in sports contests. In case of group training and spotting an exceptionally talented individual, the movie emphasized the necessity of working individually with such a person, without neglecting the other group members. Every one of them, apart from concentrating on their development, is above all a human being, who in case of negligence might drop out, squandering their talent maybe not showing yet at the school stage and thus undiscovered. On the other hand, obtaining appropriate tools and capabilities always requires consistency, sacrifice and a certain emotional attitude to the activities performed, together with self-control in the form of self-discipline maintaining one's perseverance in pursuing a goal. Thanks to consistent work, things which seem impossible may be real and achievable.

## Informacje dla autorów

1. „Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” ukazuje się jako kwartalnik. Publikacje powinny dotyczyć problemów badawczych, którymi zajmują się nauki o kulturze fizycznej (historia, teoria i socjologia kultury fizycznej, problemy rozwoju fizycznego, sprawności i wydolności fizycznej, turystyki i rekreacji, zdrowia i edukacji prozdrowotnej).
2. Publikujemy prace eksperymentalne, przeglądowe, doniesienia i artykuły polemiczne – w języku polskim i językach obcych, po uzyskaniu pozytywnej recenzji.
3. Procedura recenzowania materiałów autorskich publikowanych w „Sporcie i Turystyce. Środkowoeuropejskim Czasopiśmie Naukowym” jest dostosowana do wytycznych MNiSW „Dobre praktyki w procedurach recenzyjnych w nauce” oraz „Kodeksu etyki pracownika naukowego”. Pierwszym etapem recenzowania nadesłanych prac jest recenzja wstępna dokonywana przez Redakcję czasopisma. Na tym etapie praca poddawana jest ocenie pod względem jej zgodności z profilem czasopisma, zachowania wymogów redakcyjnych obowiązujących w wydawnictwie oraz ogólnej poprawności językowej. Tekst spełniający wymogi recenzji wstępnej otrzymuje kod identyfikacyjny i zostaje skierowany do dwóch recenzentów będących specjalistami z zakresu nauk o kulturze fizycznej. Zgodnie z zasadą „double-blind review process”, recenzenci, jak i autorzy, pozostają wobec siebie anonimowi. Recenzenci swoją opinię o pracy przedstawiają, wypełniając formularz recenzji.
4. Redakcja „Sportu i Turystyki. Środkowoeuropejskiego Czasopisma Naukowego”, dbając o rzetelność w nauce, wdraża zapory „ghostwriting” oraz „guest authorship”. Autorzy są zobowiązani do przedstawienia oświadczenia dotyczącego rzetelności nadesłanych prac, a w przypadku artykułów opracowanych przez kilku autorów – do ujawnienia wkładu poszczególnych osób w powstanie pracy. Wszelkie wykryte przypadki nierzetelności naukowej będą demaskowane, włącznie z powiadomieniem odpowiednich podmiotów (instytucje zatrudniające autorów, towarzystwa naukowe, stowarzyszenia edytorów naukowych itp.).
5. Autor artykułu jest zobowiązany poinformować Redakcję o źródłach finansowania publikacji, jeżeli nadesłana praca powstała dzięki dofinansowaniu instytucji naukowo-badawczych, stowarzyszeń lub innych podmiotów („financial disclosure”).
6. Objętość nadsyłanych tekstów nie może przekraczać 15 stron (w tym tabele, wykresy, przypisy, bibliografia). Dokument powinien być napisany w formacie A4 standardowego maszynopisu (1800 znaków na stronie, marginesy: górny i dolny – 25 mm, lewy – 35 mm). Zaleca się stosowanie kroju Times New Roman, 12 punktów, odstęp 1,5 wiersza.
7. Pracę należy przesłać w wersji elektronicznej w edytorze Word (w formacie .doc lub .docx) z dwoma egzemplarzami wydruku. Praca powinna zawierać: a) imię i nazwisko autora lub autorów; b) tytuł naukowy, identyfikator ORCID oraz afiliację; c) tytuł publikacji; d) streszczenie pracy; e) słowa kluczowe pracy; f) dodatkowo w języku angielskim: tytuł pracy, streszczenie, słowa kluczowe (1/2 strony); 7) adres kontaktowy, nr telefonu, e-mail (służbowy).
8. W razie umieszczenia w pracy rycin, tabel itp. pochodzących z opracowań zamieszczanych w innych czasopismach lub publikacjach książkowych autor ma obowiązek uzyskania zgody na ich wykorzystanie.
9. Tabele i materiał ilustracyjny (ryciny, wykresy, fotografie) można zamieścić w osobnych plikach i dokładnie opisać. Miejsca ich wstawienia należy zaznaczyć na prawym marginesie wydruku tekstu.
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Przypisy do tabeli umieszcza się bezpośrednio pod nią. W tabeli nie zostawia się pustych rubryk.

Obowiązują następujące znaki umowne:

pauza (—) – zjawisko nie występuje,

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kropka (.) – zupełny brak informacji lub brak informacji wiarygodnych,

znak x – wypełnienie rubryki ze względu na układ tabeli jest niemożliwe lub niecelowe,

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b) Wykresy należy sporządzać za pomocą programów Microsoft Office (Excel, Microsoft Graph). Szerokość wykresu nie może przekraczać 125 mm. Numer i tytuł wykresu zapisuje się pod wykresem. Wykresy sporządzane innymi programami i wklejane jako rysunki muszą spełniać następujące kryteria:

- minimalna rozdzielczość to 300 dpi,
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- nie należy projektować trójwymiarowych wykresów, które będą nieczytelne; zaleca się wykresy jednowymiarowe,
- nie stosuje się obramowań pola wykresu ani obramowań legendy,
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c) Wielkość ilustracji musi być dostosowana do formatu B5. Minimalna rozdzielczość ilustracji to 300 dpi.

10. Zasady opisów bibliograficznych:

a) w pracach z zakresu humanistycznych i teoretycznych podstaw kultury fizycznej i turystyki należy stosować przypisy dolne; obowiązuje alfabetyczny układ bibliografii (pozycje bibliografii nie są numerowane);

- przykładowe przypisy: A. Pawlikowska-Piechotka, M. Piechotka, *Dzieje budowni sportowych*, Wydawnictwo Naukowe Akademii Wychowania Fizycznego Józefa Piłsudskiego w Warszawie, Warszawa 2017, s. 50; W. Motoczyński (red.), *Polski Związek Piłki Nożnej. Zarys historii 1919–1994*, Wydawnictwo Sport i Turystyka, Warszawa 1994, s. 33; R. Stefanik, *Kultura fizyczna w środowisku wiejskim na Pomorzu Zachodnim w latach 1945–1950*, [w:] T. Drozdek-Małołepsza (red.), *Z najnowszych dziejów kultury fizycznej i turystyki w Polsce*, t. 1: *Dzieje kultury fizycznej i turystyki w Polsce w końcu XIX i XX w.*, Wydawnictwo Akademii im. Jana Długosza w Częstochowie, Częstochowa 2011, s. 215; J. Chełmecki, *Wychowankowie Związku Towarzystw Gimnastycznych „Sokół” w Polsce w igrzyskach olimpijskich 1924–1936*, „Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” 2020, t. 3, nr 1, s. 60.

- przykładowe opisy bibliograficzne: Pawlikowska-Piechotka A., Piechotka M., *Dzieje budowni sportowych*, Wydawnictwo Naukowe Akademii Wychowania Fizycznego Józefa Piłsudskiego w Warszawie, Warszawa 2017; Motoczyński W. (red.), *Polski Związek Piłki Nożnej. Zarys historii 1919–1994*, Wydawnictwo Sport i Turystyka, Warszawa 1994; Stefanik R., *Kultura fizyczna w środowisku wiejskim na Pomorzu Zachodnim w latach 1945–1950*, [w:] T. Drozdek-Małołepsza (red.), *Z najnowszych dziejów kultury fizycznej i turystyki w Polsce*, t. 1: *Dzieje kultury fizycznej i turystyki w Polsce w końcu XIX i XX w.*, Wydawnictwo Akademii im. Jana Długosza w Częstochowie, Częstochowa 2011, s. 211–224; Chełmecki J., *Wychowankowie Związku Towarzystw Gimnastycznych „Sokół” w Polsce w igrzyskach olimpijskich 1924–1936*, „Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” 2020, t. 3, nr 1, s. 59–83; <http://dx.doi.org/10.16926/sit.2020.03.04>.

b) w pozostałych pracach cytowanie w tekście oraz lista referencji powinna zostać sformatowana w stylu APA 7th. Piśmiennictwo powinno znajdować się na końcu artykułu w porządku

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- jeden autor: „...lorem ipsum (Washington, 2014)”; „Według Washingtona (2014)...”
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- trzech i więcej autorów: „lorem ipsum (Washington i wsp., 2014)”; „Według Washingtona i wsp. (2014)...”

Przykłady przypisów w liście referencji:

- książka: Ewert, E.W., Mitten, D.S., Overholt, J.R. (2014). *Natural environments and human health*. CAB International; <https://doi.org/10.1079/9781845939199.0000>; Foxall, G.R. (2018). *Context and cognition in consumer psychology: How perception and emotion guide action*. Routledge.
  - artykuł w książce: Elias, N., Dunning, E. (1970). The quest for excitement in unexciting societies. W: G. Luschen (red.), *The crosscultural analysis of sport and games* (s. 31–51). Campaign IL: Stipes Publishing.
  - artykuł w czasopiśmie: Blattner, J., Bacigalupo, A. (2007). Using emotional intelligence to develop executive leadership and team and organizational development. *Consulting Psychology Journal: Practice and Research*, 59(3), 209–219; <http://dx.doi.org/10.1037/1065-9293.59.3.209>; Washington, E.T. (2014). An overview of cyberbully in higher education. *Adult Learning*, 26(1), 21–27; <https://doi.org/10.1177/1045159514558412>.
  - strona internetowa: Monaghan, E. (2019, December 10). *5 reasons modern slavery at sea is still possible in 2019*. Greenpeace. <https://bit.ly/2PIXjqc>.
- c) bez względu na język artykułu, źródła (tytuły publikacji, czasopism, nazwy archiwów) oraz nazwy własne (np. Zrzeszenie Ludowe Zespoły Sportowe, Dar Pomorza) podajemy w brzmieniu oryginalnym, ewentualne tłumaczenie podajemy w nawiasie kwadratowym;
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1. "Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe" appears as a quarterly. Publications should relate to research problems dealt with in the field of physical culture (history, theory and sociology of physical culture, physical development problems, fitness and physical efficiency, tourism and recreation, health and health education).
2. We publish papers about experiments, reviews, reports and polemic articles – in Polish and in foreign languages, after they have been positively reviewed.
3. The procedure for reviewing the copyright materials published in "Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe" is adapted to the guidelines of the MNiSW (Ministry of Science and Higher Education) "Dobre praktyki w procedurach recenzyjnych w nauce" (Good Practices in Reviewing Procedures in Science) and "Kodeks etyki pracownika naukowego" (The Code of Conduct for Researchers). The first stage of reviewing the submitted publications is a preliminary review made by the editorial staff of the Journal. At this stage, the publication is evaluated in terms of its compatibility with the profile of the Journal, the editorial requirements of the publishing house and general linguistic correctness. The text satisfying the requirements of the initial review receives an identification code and is directed to two reviewers, who are specialists in the field of physical culture. According to the principles of the "double-blind review process", reviewers and authors remain anonymous to one another. The reviewers present their opinions on the work by completing the review form.
4. Taking care of the integrity of science, the editors of the "Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe" implement barriers for "ghostwriting" and "guest authorship". The authors are required to submit a statement regarding the reliability and copyright to the submitted texts, and in the case of articles prepared by several authors – to disclose the rate of contribution of individual authors to the creation of their work. All detected cases of scientific misconduct will be exposed, including notification of relevant entities (institutions employing authors, scientific societies, associations of scientific editors, etc.).
5. The author of the article is obliged to inform the Editorial Office of the source of funding for the publication, if the submitted work was created thanks to funding of scientific and research institutions, associations or any other entities ("financial disclosure").
6. The volume of submitted texts should not exceed 15 pages (including tables, graphs, footnotes, bibliography). The document should be written in the A4 format of a standard typescript (1800 characters per page, margins: upper and lower – 25 mm, left – 35 mm). It is recommended to use the Times New Roman typeface, 12 points and a 1.5-line spacing.
7. The work should be sent in an electronic version in the Microsoft Word editor (in .doc or .docx format) with two copies of the printout. The work should include: a) the name and surname of the author or authors; b) academic title, ORCID iD and affiliation; c) the title of the publication; d) an abstract of the paper; e) keywords of the text; f) additionally in English: the title of the paper, an abstract, keywords (½ page); 7) contact address, telephone number, e-mail (business).
8. In the case of placing engravings, tables, etc. in the work, coming from studies published in other magazines or books, the author is required to obtain permission to use them.
9. Tables and illustrations (figures, graphs, photographs) can be placed in separate files and accurately described. Place their insertions should be marked in the right margin of the text printout.

- a) The font in the table should be 9 points, while the width of the table should not exceed 125 mm. There is no other table formatting than the grid. The title is placed above the table. Footnotes to the table are placed directly below it. No empty boxes are to be left in a table.

The following conventional symbols apply:

pause (—) – the phenomenon does not occur,

zero (0) – the phenomenon exists, however in quantities smaller than the numbers that can be expressed in the table with numerical digits,

dot (.) – complete lack of information or lack of reliable information,

x sign – it is impossible or pointless to fill in the boxes, because of the layout of the table,

“incl.” – means that you do not give all the components of the sum.

- b) Charts should be prepared using Microsoft Office programs (Excel, Microsoft Graph). The width of the chart must not exceed 125 mm. The chart number and title are saved below the graph. Charts made with other programs and pasted as drawings must meet the following criteria:

- the minimum resolution is 300 dpi,
- data and descriptions placed on the chart must be Times New Roman to 9 pt,
- you should not design three-dimensional charts that will be illegible,
- the field of the chart field and the borders of the legend are not used,
- no background other than white is used,
- the title of the chart or the record “Source: ...” is not repeated in the area of plotting.

- c) The size of the illustrations must be adapted to the B5 format. The minimum resolution of the illustrations is 300 dpi.

10. Rules for bibliographic descriptions:

- a) footnotes should be used in articles concerning humanistic and theoretical foundations of physical culture and tourism; the alphabetical arrangement of the bibliography applies (bibliographic entries are not numbered);
- sample footnotes A. Pawlikowska-Piechotka, M. Piechotka, *Dzieje budowli sportowych*, Wydawnictwo Naukowe Akademii Wychowania Fizycznego Józefa Piłsudskiego w Warszawie, Warszawa 2017, p. 50; W. Motoczyński (ed.), *Polski Związek Piłki Nożnej. Zarys historii 1919–1994*, Wydawnictwo Sport i Turystyka, Warszawa 1994, p. 33; R. Stefanik, *Kultura fizyczna w środowisku wiejskim na Pomorzu Zachodnim w latach 1945–1950*, [in:] T. Drozdek-Małolepsza (ed.), *Z najnowszych dziejów kultury fizycznej i turystyki w Polsce*, vol. 1: *Dzieje kultury fizycznej i turystyki w Polsce w końcu XIX i XX w.*, Wydawnictwo Akademii im. Jana Długosza w Częstochowie, Częstochowa 2011, p. 215; J. Chełmecki, *Wychowankowie Związku Towarzystw Gimnastycznych “Sokół” w Polsce w igrzyskach olimpijskich 1924–1936*, “Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” 2020, vol. 3, no. 1, p. 60.
  - sample bibliographic descriptions: Pawlikowska-Piechotka A., Piechotka M., *Dzieje budowli sportowych*, Wydawnictwo Naukowe Akademii Wychowania Fizycznego Józefa Piłsudskiego w Warszawie, Warszawa 2017; Motoczyński W. (ed.), *Polski Związek Piłki Nożnej. Zarys historii 1919–1994*, Wydawnictwo Sport i Turystyka, Warszawa 1994; Stefanik R., *Kultura fizyczna w środowisku wiejskim na Pomorzu Zachodnim w latach 1945–1950*, [in:] T. Drozdek-Małolepsza (ed.), *Z najnowszych dziejów kultury fizycznej i turystyki w Polsce*, vol. 1: *Dzieje kultury fizycznej i turystyki w Polsce w końcu XIX i XX w.*, Wydawnictwo Akademii im. Jana Długosza w Częstochowie, Częstochowa 2011, pp. 211–224; Chełmecki J., *Wychowankowie Związku Towarzystw Gimnastycznych “Sokół” w Polsce w igrzyskach olimpijskich 1924–1936*, “Sport i Turystyka. Środkowoeuropejskie Czasopismo Naukowe” 2020, vol. 3, no. 1, pp. 59–83; <http://dx.doi.org/10.16926/sit.2020.03.04>.
- b) in other papers In-text citations and a list of references should be formatted in APA 7th style. References should be listed at the end of the article in alphabetical order (bibliography items are not numbered). In-text citations should be described using the following formula:

- one author: “...lorem ipsum (Washington, 2014).”; “According to Washingtona (2014)...”
- two authors: “...lorem ipsum (Washington & Watson, 2014).”; “According to Washingtona and Watsona (2014)...”
- three and more authors: “lorem ipsum (Washington et al., 2014).”; “According to Washington et al. (2014)...”

Examples of the reference list:

- book: Ewert, E.W., Mitten, D.S., Overholt, J.R. (2014). *Natural environments and human health*. CAB International; <https://doi.org/10.1079/9781845939199.0000>; Foxall, G.R. (2018). *Context and cognition in consumer psychology: How perception and emotion guide action*. Routledge.
- article in book: Elias, N., Dunning, E. (1970). The quest for excitement in unexciting societies. In: G. Luschen (ed.), *The crosscultural analysis of sport and games* (pp. 31–51). Champaign IL: Stipes Publishing.
- journal article: Blattner, J., Bacigalupo, A. (2007). Using emotional intelligence to develop executive leadership and team and organizational development. *Consulting Psychology Journal: Practice and Research*, 59(3), 209–219; <http://dx.doi.org/10.1037/1065-9293.59.3.209>; Washington, E.T. (2014). An overview of cyberbully in higher education. *Adult Learning*, 26(1), 21–27; <https://doi.org/10.1177/1045159514558412>.
- webpage: Monaghan, E. (2019, December 10). *5 reasons modern slavery at sea is still possible in 2019*. Greenpeace. <https://bit.ly/2PIXjqc>

c) regardless of the language of the article, sources (titles of publications, magazines, names of archives) and proper names (e.g. Zrzeszenie Ludowe Zespoły Sportowe, Dar Pomorza) are given in the original version, plus possible translation in square brackets;

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