

## **REVIEW**

of doctoral dissertation  
by Najmaldin Al-Taesh, MSc  
entitled „Sport for everyone. Evaluating accessibility in outdoor public spaces  
with attention to people with disabilities”,  
written under the supervision of university Prof. Katarzyna Ujma-Wąsowicz, PhD, Eng. Arch.

### **1. Formal basis for the review**

- Act of 20 July 2018 on Higher Education and Science, Journal of Laws 2024, item 1571, Article 190 section (3).
- Resolution No. 94/2025 of the Discipline Council for Architecture and Urban Planning at the Faculty of Architecture of the Silesian University of Technology, dated 22 September 2025.
- Letter from the Chair of the Discipline Council for Architecture and Urban Planning at the Silesian University of Technology, Dr Alina Pancewicz, dated 30 September 2025.
- Contract for specific work

### **2. Formal characteristics of the dissertation**

#### **Form and content of the work**

The dissertation under review is a single-volume work consisting of 110 numbered pages. The English-language text is supplemented with 21 illustrations in the form of photographs, graphs and diagrams, as well as 9 tables. There is no information about the sources of the illustrations and, with the exception of Table 1 on p. 21, the data included in the tables. The Candidate does not use footnotes, and one illustration in the form of a collage of photographs and maps appears twice, on pp. 10 and 66.

From an editorial point of view, the work has been prepared quite carefully.

#### **Assessment of the structure of the dissertation and the content of its individual parts**

The content of the dissertation consists of acknowledgements, an abstract, a table of contents, a list of illustrations, a list of tables, numbered in sequence: Introduction, 4 main chapters and Conclusions and Recommendations. The table of contents also shows a Bibliography on p. 108, but this is not true, as the Candidate includes lists of literature and sources at the end of each chapter, which the table of contents does not show. In the case of the last, sixth chapter, such a list begins on p. 107.

The structure of the dissertation stems from the fact that chapters 2-5 contain material previously published in journals and chapters in scientific monographs. The title page preceding each of them provides bibliographic data, including the names of their authors, as all these publications were co-authored.

The introduction presents the trends and importance of promoting accessible, mass sport in public spaces, with particular attention to the needs of people with disabilities. It points to research gaps, presents the structure of the solution to the problem, the aim of the research and the research questions, and finally the method of work and its structure.

Chapter 2 contains an analysis of the key factors influencing the shaping of public spaces in cities that are friendly to inclusive sport.

Chapter 3 focuses on identifying the barriers perceived by runners with disabilities in urban environments.

Chapters 4 and 5 address the issue of outdoor recreational spaces from the point of view of accessibility for people with disabilities, using the following examples: in Chapter 4, a case study of an activity zone in Chorzów, and in Chapter 5, four parks and their physical activity zones in Poland and three other selected countries. The Introduction (p. 12) declares an exploration of the issue of revitalisation of parks and activity zones, but in reality these chapters only identify deficits in accessibility.

The last chapter summarises the main findings of the research, attempts to formulate conclusions, and ends with recommendations for policymakers and future scientific research.

This structure is obviously due to the fact that the work is mostly based on material from earlier scientific publications. It can be assessed that the topics of the individual parts and their sequence correspond to the methodology of solving the research problem reflected in the title of the work: analysis of key factors based on theoretical premises, surveying to identify physical accessibility barriers perceived by users of the space from the group of runners with disabilities. The research concludes with an analysis of case studies of selected activity zones from the perspective of the seven principles of universal design and New Zealand accessibility indicators.

In summary, the structure of the dissertation does not raise any objections, but it is unclear to the reviewer why the title page of Chapter 2 cites the text entitled *Promoting Sport Practice in Urban Public Space...* as the second reference, since it appears that the content of the chapter entirely coincides with the content of the article entitled *What factors influence the shaping...* etc. Furthermore, for reasons that are unclear, Chapters 3 and 4 differ from the originally published texts in the number of items in the bibliographies.

### **3. Assessment of the scientific significance of the topic and thesis**

The topic of the work is undoubtedly very important and relevant, not only for users of Polish public space. The issue of accessibility of public spaces for people with special needs still requires exploration. Physical activity, including sport, amateur sport and recreational sport, is recognised by science as an important factor in maintaining fitness, an element of health prevention and ensuring good health and quality of life at almost every stage. It is also a common element of lifestyle. The issue of accessibility in the context of sport, runners, including those with disabilities, and the transformation of urban spaces into ones that are friendly to physical activity, the creation of 'sports cities,' is important and relevant in this context.

The Author declares (p. 3) to have examined the relationship between the spatial characteristics of outdoor public spaces and people with disabilities (i.e. mainly Chapter 3) and to have assessed the accessibility and usability of outdoor physical activity facilities according to universal design principles and accessibility standards (Chapters 4 and 5). The expected result is an evaluation of how these factors encourage various groups, especially people with disabilities, to engage in sports activities. The study focuses on three categories of areas: outdoor recreational spaces, such as parks and playgrounds, urban areas used for running, and urban spaces in general. The Candidate identifies the elements to be assessed, distinguishing between the essential elements of the space (surface, lighting, fencing) and certain users, such as cyclists or cars.

The assumptions on p. 7, stating that the physical characteristics of outdoor public spaces that determine their accessibility are directly related to those that create challenges for physical activity and influence participation in popular sports, seem to constitute the thesis of the work.

The Candidate also assumes a direct link between design in accordance with universal design principles and accessibility standards and the promotion of sport for everyone in urban public spaces. Furthermore, the Author assumes a strong, direct relationship between the physical characteristics and accessibility of urban running routes and the accessibility and usability of public parks and playgrounds.

If we assume that the elements of the above assumptions, such as the characteristics of public spaces, are specified by the elements selected as research subjects, then we can accept these hypotheses as correct and corresponding to the assumptions of the work and relating to important and current issues.

#### **4. Substantive assessment of the dissertation**

##### **Authorial contribution of the Candidate**

Based on the joint statement of the Supervisor and the Candidate, it can be assessed that the Supervisor's contribution amounts to 20% and is limited to supervising the development and, in the case of some chapters, approving the methodology. Therefore, the Reviewer has no reservations as to the Candidate's contribution to the research and the creation of the dissertation.

##### **Subject matter and scope of the dissertation**

The subject matter of the dissertation concerns the criteria for shaping urban public spaces, and therefore falls within the discipline of architecture and urban planning.

The scope of the dissertation concerns the relationship between the shaping of specific places in public spaces related to physical activity and their accessibility and the promotion of sport, in particular with regard to people with disabilities and the creation of what the Candidate refers to as a 'sport city'.

The Candidate defined the aim of the research (p. 8) as examining the key factors influencing the characteristics of public spaces in promoting sport for everyone in terms of accessibility and usability, based on the principles of universal design and international and local accessibility standards. This is to be done primarily with persons with disabilities in mind and is consistent with the assumptions and theses of the dissertation. It seems only slightly confusing to emphasise the term 'sport' in the initial parts of the dissertation. After analysing the entire dissertation, the reviewer concludes that the key to the scope of the dissertation is the second part of its title: it is about accessibility for people with disabilities in the context of physical activity. Sport appears mainly in Chapter 2, where a group of runners with disabilities was instrumentally, but rightly, used to identify barriers in public spaces.

##### **Research method**

In order to design the achievement of the research objective, the Candidate formulated four research questions, which in turn are answered by the content of the four main chapters of the dissertation. The research methods adopted are intended to answer these questions and, consequently, achieve the objective of the dissertation.

The research reported in Chapter 2 used a literature review method, including a systematic search of bibliographic databases to identify key factors influencing the characteristics of public spaces in terms of accessibility and usability for physical activity and sport.

Opinions on spatial barriers hindering the use of public spaces for popular sports and physical activity in general were collected through a remote survey addressed to participants of running marathons for people with disabilities, including mobility and visual impairments (p. 9).

The physical characteristics of the spaces analysed in the case studies were documented by means of photographic records, field measurements, sketches, etc. New Zealand accessibility standards were used to assess the accessibility of the spaces studied for people with disabilities, also using the PARCS tool.

The selection of case studies is justified on p. 3 by the intention to compare revitalised activity spaces from countries with low accessibility standards with spaces from countries that are more advanced in this area. Therefore, the selection of case studies can be considered justified.

##### **Assessment of how the research objectives were achieved**

The analysis of the dissertation shows that the Candidate designed the achievement of the research objectives as follows:

- 1) a methodical review of the literature on the subject, aimed at identifying key environmental and spatial factors influencing participation in urban sports activities;
- 2) a survey of participants in organised running events from the group of people with disabilities in order to identify the barriers they encounter in accessing urban running events;
- 3) assessment of the activity zone in Chorzów according to universal design criteria and Warsaw accessibility standards in order to determine the scope of possible interventions to improve the accessibility and inclusiveness of this zone;
- 4) four case studies involving the analysis and comparison of urban parks and public playgrounds in terms of barriers to sports and other physical activities for people with disabilities, and determining the impact of planning policies and practices in individual countries on the solutions.

The stages of the research reported in the individual articles in the series generally correspond to the research questions formulated at the beginning of the dissertation.

Chapter 2 provides a paradoxical observation on the negative impact of organised events, which often annex public spaces and introduce barriers and obstacles to unorganised physical activity (p. 31). Similarly, attention was drawn to the adverse effects on social inclusion and cohesion of mass events dominated by young people.

It can be concluded that the literature review has yielded in-depth and diverse conclusions on a fairly wide range of aspects of the shaping and functioning of public space in the context of promoting physical activity (31-32), such as sociological and psychological factors, the requirements of various sports disciplines, interpersonal relationships, cultural differences and local climatic characteristics. The selection of items for the literature review is convincing, but there is a slight lack of critical verification of the factors obtained. It would be useful to list the factors identified as critical, as Table 2 contains a list of factors identified in individual items of literature. Furthermore, the discussion of practical conclusions (point 2.6, p. 33) seems vague and somewhat wishful. Ultimately, the conclusion of the chapter lists the same factors that appeared in the discussion of the methods of the chapter (p. 20), which is somewhat surprising, as new findings would be expected.

The choice of running as a sport for the purpose of researching opinions on barriers seems appropriate and justified, as there are relatively many events organised within this discipline, and it is therefore quite easy to obtain a relatively large sample. The nature of running means that participants explore quite large areas of public space, which increases the volume of barriers they are likely to encounter, and the choice of a group of people with disabilities is justified by this group's high sensitivity to the impact of any barriers. It would be good if this type of justification were clearly articulated in Chapter 3 of the dissertation.

The manner in which the survey was conducted and the results evaluated should be assessed as correct and competently implemented.

With regard to the case study of the activity zone in Chorzów: the adequacy of selected elements was assessed based on the 7 principles of universal design and the Warsaw accessibility standard, and recommendations were formulated for a set of selected components. It should be noted that the two sets of elements do not fully overlap, and therefore the conclusions of the assessment are not fully translated into recommendations. Furthermore, the recommendations are rather general in nature, universal for each category of facilities, and no specific guidelines have been formulated regarding the forms and scope of intervention in this particular case, which could be expected based on research question No. 3 on p. 8.

With regard to the four case studies, it can be said that the conducted assessments are rather superficial and do not explain the criteria for determining the percentage rankings. The conclusion is

that there are differences between the parks studied in terms of accessibility, which could have been avoided if the perspective of people with disabilities had been taken into account in the design. However, the reviewer did not find an answer to the question contained in research question 4 concerning the impact of national planning policies and practices on the creation of inclusive spaces in these countries. Perhaps this element was too ambitious in the research question and proved impossible to examine on the basis of only one case from each country.

The recommendations for practitioners and policy makers contained in subsection 6.4 are not the result of the research described in the dissertation, but a general conclusion that since accessibility to elements of space encourages people, especially those with disabilities, to participate in physical activities in public spaces, it is the duty of the authorities to support this, including by removing barriers that hinder such accessibility.

### **Assessment of scientific methodology**

Although the reviewer found the hypotheses to be relevant to the problem, the presentation of these hypotheses is somewhat vague.

The argument is rather clear, at times even simplistic, but this need not be a criticism. It can be read as a technical report on the research conducted, and thus free of literary embellishments.

It can be said that the structuring of the individual stages of the research has been performed correctly and that the research methods and tools have been correctly selected for each of them.

The scientific apparatus is somewhat simplified. The Author does not use footnotes, bibliographical references are references to item numbers in the bibliography, so if the reader wants to find out on which source a given statement is based, they must refer to the bibliography. The illustrations and tables do not include information about their sources of origin, and in the case of tables, about the sources of the data. Although in the latter case it can be inferred that the data comes from the Author's own research, this information should still be included.

In principle, the research was correctly planned and the hypotheses were well formulated, but they were not fully verified.

On p. 88, the limitations of the tool used in the last part of the research are rightly discussed. However, it is not clear to the reviewer on what basis the individual percentages shown in Figures 5, 6 and 7 were determined. On p. 79, it is only stated that the data was entered into a spreadsheet, verified and categorised, and that descriptive statistics, whatever they may be, were used for the analysis. It is also unclear how the inadequacy of lighting in two of the parks studied was assessed (p. 88).

Research questions 3 and 4 were not fully answered. In the first case, rather than specifying the necessary interventions and corrections, only the elements requiring improvement were indicated (pp. 99-100), in some cases only additionally to what extent. In the second case, planning policies and practices were not examined, and the final recommendations for authorities, document authors and practitioners are only general and anecdotal in nature.

When analysing subchapter 6.4 (the last one) on pages 104-105, parts of the text from pages 69 to 71 are duplicated (with only minor changes). The reviewer fears that this should be assessed as an undisclosed duplication of a fragment of a previously published article.

To summarise the assessment of the scientific approach, it should be considered uneven and not free from simplifications. Some of the conclusions are not sufficiently documented, and some of the objectives have not been achieved.

### **Specific comments**

On p. 11, when discussing the use of the PARCS tool, there are statements that are unclear to the reviewer. There is a mention of the successful use of this tool in previous studies, but no details are

given as to which ones, as well as consultations with local governments in order to “determine the adequacy of addressing all aspects of accessibility and usability for all groups of persons with disabilities”. As no data on such consultations were found in the rest of the paper, it can be assumed that this is a reference (or quotation?) from M.A. Perry’s work on the PARCS tool. This requires clarification.

The classification of factors influencing participation in urban sports (p. 20) is somewhat debatable: the factor of accessibility appears in both the set of spatial and environmental factors, whereas it seems that the sets should be kept separate.

Chapter 2 (p. 23) lists the barriers to the popularisation of sport for everyone, although their identification is the subject of research described only in the next chapter. The Author also writes about the results of “previous research” (p. 25), but does not specify what research he is referring to.

It would have been worthwhile to include an additional open-ended question in the survey addressed to runners: perhaps the respondents would have indicated some barriers not taken into account by the researchers.

On p. 55, it is mentioned that the interest of runners with disabilities in participating in mass street races has increased, but it is not clear in what context, in relation to what? No research was conducted specifically dedicated to establishing a link between spatial solutions and the popularisation of participation in mass sports – conclusions were drawn on the basis of anticipating such a positive correlation, indirectly supported only by the opinions of runners.

## **Summary**

The work certainly addresses a scientifically and practically relevant, current research problem. An advanced knowledge of the subject is evident. The literature review is broad and multidisciplinary. The Author demonstrates proficiency in the use of research techniques. However, there are the aforementioned shortcomings in the scientific approach, including gaps in the documentation of some elements of the research. Some of the conclusions are vague and rather obvious. Not all elements of the research questions have been answered and not all elements of the hypotheses have been verified. Furthermore, it seems that the repetition of part of the text from Chapter 4 in the last subchapter should be assessed as unmarked use of an earlier publication. The declared consultations with local governments were not carried out, and the policies and practices of selected countries were not examined as declared, and the conclusions in this regard are postulative and anecdotal. No research was conducted on the relationship between spatial solutions and the promotion or dissemination of mass physical activity, which is mentioned several times in the work – conclusions were drawn on the basis of anticipating such a positive correlation based on opinion.

## **5. Conclusion**

Taking into account the above assessment of the dissertation by Najmaldin Al Taesh, entitled “Sport for everyone. Evaluating accessibility in outdoor public spaces with attention to people with disabilities”, I conclude that it does not meet the requirements for doctoral dissertations in the field of architecture and urban planning, as specified in Article 187 of the Act of 20 July 2018 Law on Higher Education and Science (Journal of Laws of 2024, item 1571).

Białystok, 04.12.2025 r.

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