Evaluation of Current Accessibility Implementations in Public Spaces in Turkey from Intellectual, Architectural, and Legal Aspects

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Abstract – Accessibility is among the central issues in national and international policies aimed at catering for a more democratic social life, since its achievement promotes the right to full participation in all public services and community life, to a significant extent. This study addresses architectural accessibility in presenting attitudinal, architectural, and legal aspects that are seen as inter-related contexts in assuring the inclusion of people in public life. The social theory of disability in the embodied notion of human right approach would influence considerably legislative arrangements which have played a key role in creating an inclusive physical and social environment for all. In Turkey, as architectural standards have not been appropriately applied in practice, and there have been no up-to-date applications of the standards in many parts of the built environment, people with disabilities are still disregarded, both in mainstream public life. Although there have been accessible design applications in some areas due to legal obligations, they remain insignificant, being specific case-based responses, and thereby fall short of providing unity and continuity in design implementations. Based on these circumstances, in Turkish sample, this study addresses how architecture and legal conventions respond to a significant transformation in disability approaches from broad-reaching human right aspect and consequently, succeed in inclusive public spaces.

Keywords – *Accessibility legislations, inclusive public spaces, social theory of disability, architectural design*

I. INTRODUCTION

Accessibility is among the central issues in national and international policies aimed at catering for a more democratic public life, since its achievement promotes the right to full participation in all public services and community life, to a significant extent [1]. This study presents a critical evaluation of the attitudinal, architectural, and legal aspects that are seen as inter-related contexts in assuring the inclusion of people with disabilities (PWDs) in public spaces. The social theory of disability in the embodied notion of human right approach would influence considerably legislative arrangements which have played a key role in creating an inclusive physical and social environment for all. In Turkey, as architectural standards have not been appropriately applied in practice, and there have been no up-to-date applications of the standards in many parts of the built environment, people with disabilities are still disregarded, both in mainstream public life. Although there have been accessible design applications in some areas due to legal obligations, they remain insignificant, being specific case-based responses, and thereby fall short of providing unity and continuity in design implementations. Based on these circumstances, in Turkish sample, this study addresses how architecture and legal conventions respond to a significant transformation in disability approaches from broad-reaching human right aspect and consequently, succeed in inclusive public spaces. The realization of inclusive public spaces that can enhance spatial, social, and cultural opportunities of PWDs that are equal to that provided to the able-bodied depends on the success of all aspects in unison.

II. IMPAIRMENT, DISABILITY AND THE PHYSICAL ENVIRONMENT: PHILOSOPHIES AND MODELS

Historically, understandings of disability have been characterized according to three different disability models, which are the *morality model,* the *medical model* and the *social model of disability*. The Morality Model, which has the longest history, is based on "culturally and religiously-determined knowledge, views and practices" [2], [3], in which communities tend to put people with disabilities in a position that may range from human to non-human in terms of implications of cosmology, social organization and other factors [2]. The Medical Model, known also as the Individual Model, is established upon scientific views and practices, and views the nature of the "problem" to be a result of individual inadequacy, inability and abnormality [2], [4], [5]. Taking a medical perspective, focus is on accommodating individuals in the physical environment by asking for support and opportunities in an individualistic aspect. This results in partial design practices that fail to advance the provision of equal access to all types of public spaces [2].

As a result of the negative impacts of individualistic disability approaches, social action was needed to tackle the problem and to provide the necessary alterations to ensure the full participation of people with disabilities in all spheres of community life, which is substantially the common duty of the community [6]. In this sense, international disability movements challenging the conventional approaches to disability and the human rights issue have come to the forefront. People with disabilities started to ask for their rights in the late 1960s and 1970s through the Civil Rights and

Women's Right Movements [2], which also influenced a shift in political strategies [7]. The "Disability Rights Movement", "Normalization Activity" and "Independent Living Movement" at those times were important drivers in the development of the human rights issue, bringing about an increase in social efforts in Western countries. The international movement of people with disabilities of the late 1960s brought about a gradual transformation of medical-based identification to one that was more socio/political, referred to as the "Social Model" of disability [2], [5], [7].

For Social Model, in contrast to Medical Model, the problem is related to institutional, environmental and attitudinal barriers rather than individual impairment [2], [5], [8]. Having implied this social-based disability approach, Kroeger (2010) states that:

> Disability activists and scholars emphasize that the primary cause of the problem is because of society's failure to value and appreciate disability and design environments that are welcoming and inclusive rather than individual limitations or biological differences. [9]

In this description, Kroeger, like many other researchers, places significant emphasis on poorly designed environments as a key factor in the problem of discrimination.

Even though the powerful and effective role of the Social Model, which is central to the disability movement, has received considerable support in disability literature, some claim that its success has been weak. To illustrate, Shakespeare and Watson (2001) criticize its inadequacy in a way that it could be reduced to a simple slogan: '*disabled by society not by our bodies*' [7]. They suggest an embodied ontology as the best starting point for disability studies, claiming that this would lead to a more adequate social theory of disability. In this approach, "there is no qualitative difference between disabled people and non-disabled people, because *we are all impaired*." Hence, it includes all dimensions of the experiences of disabled people as the inherent nature of humanity (bodily, psychological, cultural, social and political) rather than being limited to either a medical or social approach. That is to say, this embodied notion of the disability model indicates that disability is, in fact, experienced at a personal level, although experiencing disability cannot be limited only to the human body.

Efforts to break the dividing line between "normal" and "disabled" [meaning impaired] and to see disablement [impairment] as *the normal condition of humanity* rather than unique to a specific population have been supported for a long time [10], [11]. Based on this embodied position, the World Health Organization (WHO) proposed the *International Classification of Functioning, Disability and Health (ICF)* in 2001 as a comprehensive system for the consideration of disability. Taking a multi-faceted approach, the ICF categorizes health and its related domains with regards to the body, society and individual context (Figure 1). It assembles systematically a wide variety of domains in viewing disability as a universal human experience by "mainstreaming" the experimentation of disability [6]. While doing this, it addresses environmental factors that can limit activities or restrict participation, as well as personal factors [6]. This way of looking at disability seem to help describe it in a more unified, non-discriminative and social-based way.
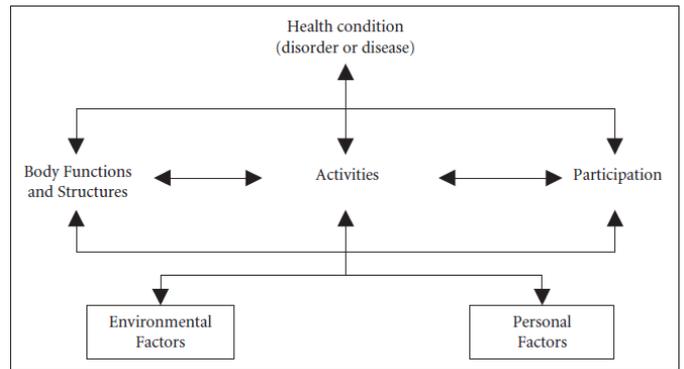

Figure 1: Interactions between the components of ICF [6]

The bulk of environmental studies in literature, as in other fields (such as social, educational and political), focus on the need to transform the idea of disability from medical-based towards an embodied social constructivist position. In this respect, Barnes addresses the need to shift the perspectives and assumptions of disability towards a unified social-based approach, and to reflect this on the design field [12]. The realization of this responsibility of designers should be the central concern of architecture, with the aim of promoting *active citizenship*, *democratic participation*, and in turn, the *inclusion of all community members in public life*. This means equitable involvement of all people, regardless of their (dis)abilities, as well as enhancing the supportive environment for participation in all activities.

The social theory of disability in the embodied notion of *design for all* would influence considerably the level of inclusion of all citizens in public spaces. The following sections indicate how architecture and legal conventions in Turkey point to a transformation in disability approach in the light of the changing sociological paradigms.

III. ARCHITECTURAL ASPECTS TO ENHANCE EQUITABLE ACCESS IN PUBLIC SPACES

About 15 percent of the world's population live with some form of disability, based on 2010 global population estimates [13]. In Turkey, this figure was put at 12.29 percent in the "2002 Turkey Disability Survey", which is a unique national data source of the disability population census [14]. These numbers show, more or less, the heterogeneity of the human population. In any case, in the global architecture movement, which embraces respectfully the experiences of people with diverse abilities, it is essential not to exclude any community members from society.

Recent architectural studies define accessibility as a pre-condition for democratic public life all around the world. For Barnes and Mercer, a lack of access to the built environment is one of the primary challenges faced by disabled people in their social exclusion from public life [4]. Accessibility of public spaces is a central issue that should be addressed to guarantee an equally welcoming spaces for all, including PWDs [15].

From these perspectives, public spaces should provide diverse and unbroken commonly used activity lines, in both interior and outdoor spaces. The nature of human behavior has characteristics of a *ramification* of movement, which can result in a gradation of publicness in public life for PWDs. Hence, to provide equal opportunities for all, including those with disabilities, all activities in public spaces should be accessible for all on an equal basis.

In Turkey, as a result of indifference to accessibility in the initial phases of architectural design process, a retrofitting of the physical environment is needed after the construction and occupancy processes have been completed. This brings about the challenge of how to transform a spatial environment into one that is accessible and inclusive for all students. In this sense, the evaluation and re-design of the design perspective and the implementation of an adopted design strategy become important. Despite the establishment of national policies to create an inclusive built environment, PWDs have still been disregarded and discouraged with poorly designed spatial environments. Herein, the crucial point is to embrace the ideal that ensures participation in all proposed spatial activities for all users, to the greatest extent possible. Their choices should depend on their personal decisions, intents or wills rather than on obstacles in the physical environment, as the main influencing factors in their participation in the diverse aspects of public life. This corresponds with the perspective of celebrating *diversity* among people.

The important design philosophies put forward by "Universal Design" [16] and "Inclusive Design" [17] shed light on this perspective. These design approaches would contribute greatly to the development of an integrated approach to effective planning among all responsible units in public institutions. To ensure an appropriate response to the ideals of these user-friendly design approaches, a more flexible and coordinated design process should be adopted, rather than a mere literal compliance with the standard rules [18]. From the perspective of the social approach to disability, it should be noted here that design principles should be viewed with a *right-based approach* rather than just *compliance*, although focus is all too often on '*what must be done*' rather than '*what can be done*' [19].

Focusing on the notion of "what is compliance" is also valid in architectural efforts in Turkey. As standards have not been appropriately applied in practice, and there have been no up-to-date applications of the standards in many parts of the built environment, PWDs are still disregarded, in mainstream public life. Although there have been inclusive design applications in some areas, they remain insignificant, being specific case-based responses, and thereby fall short of providing unity and continuity in design implementations (e.g. adding to a ramp or a parking spaces for wheelchair users, or attaching detectable surfaces to pavements for people with visual impairments). Although these efforts have increasingly been endorsed, they are generally isolated, piecemeal actions rather than being part of an overarching plan; therefore, they remain invaluable and meaningless [20]. Compliance with what is required based on legal norms and individual-centered demands, without dealing with the on-going and diverse requirements of the entire population, will always result in failure.

IV. Legal Documents of Turkey and Organizational Efforts

Turkey's Constitution has a social law structure, and has, since 1982, stated in no uncertain terms that, "No one shall be deprived of the right to learning and education" (Article 42) and "The State shall take measures to protect the disabled and secure their integration into community life" (Article 61), although the first comprehensive legal document that reflects this Article of the Constitution, namely the 'Turkish Disability Law', was approved only in 2005.

According to the Disability Law, within seven years of its adoption, public buildings, roads, pavements, pedestrian crossings, open and green areas, sport facilities, and social and cultural infrastructural regions, in short, all public buildings, should be (re)designed to satisfy the needs of people with disabilities in accordance with the Turkish Design Standards (Temporary Article 2) [21]. This provision of the Disability Law focuses on the context of "reasonable accommodation" in referring to a non-discriminative right-based approach in parallel with the international policy documents. Since 2005, the Turkish Disability Law has facilitated the significant realization of other policies by increasing awareness of the right to access in all fields of public life. It has heralded in a national alarm call to develop inclusive measures and strategies aimed at making public spaces accessible to all users.

For a nation, laws, policies and design standards, as well as collaborative efforts aimed at democratic public life have an impact on increasing awareness and sensitivity in the creation of inclusive built environments. In Turkey, problems have been found to result from the lack of an inclusive approach to respond to the needs of PWDs, the lack of data and knowledge about their needs, difficulties, wishes, and preferences. Hence, accessibility design standards are generally implemented in literal compliance with the legal code. Evaluations of design implementations to identify whether they respond to the real spatial requirements and the monitoring of applications of right-based policy provisions are ignored issues and this results in poorly designed built environments that make equal access to any public services, activities, facilities impossible, and in turn, obstruct the real inclusion of PWDs.

Monitoring and control mechanisms have been highlighted in the "Accessibility Strategy and Action Plan" of 2010 as one of the key factors in the elimination of physical barriers in the built environment. The main concern of this Plan on design applications is stated as being "*to improve the qualities of accessibility applications in accordance with technical specifications*" [22]. In this regard, it would seem that providing a well-defined monitoring and controlling design guide for diverse types of built environment would be insufficient. In the absence of such a legal guiding document, municipalities and public institutions have been indifferent in their approaches, and have thereby failed to implement accessibility standards in a well-planned and holistic way. These insufficiencies in the legal basis have come to light at a time when all parts of the built environment should be allowing equal access for PWDs, which had been extended to July 2013 with an amendment to the Disability Law.
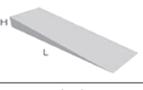
Prior to 2013 there had been no legal requirement related to a monitoring mechanism for the control of accessibility design applications, which is a *sine qua non* in ensuring equal access to public spaces. With the adoption of the "*Regulation for Monitoring and Controlling Accessibility*" in July 2013, provisions about the constitution of commissions responsible for monitoring and controlling accessibility conditions and their working procedures and principles have been established [23]. The goals of these Commissions are as follows:

1. To identify, monitor and control current accessibility circumstances by means of *Forms for Monitoring and Controlling Accessibility of Buildings, Open Spaces, and Transportation Vehicles* (Table 1), which are presented as annexes in the Regulation.

2. To grant an extension of time if needed, provided that all accessibility problems are overcome by 7/7/2015.
3. To impose pecuniary penalties. [23]

The *Forms for Monitoring and Controlling Accessibility of Buildings, Open Spaces and Transportation Vehicles* were prepared by the "Head Office of Services for People with Disabilities and the Elderly" for the evaluation of the existing design of the built environment. They were created based on the relevant national design standards and list the existing applications, both appropriate and inappropriate, in accordance with the related design standards (Table 1).

Table 1: A part of the Forms for Monitoring and Controlling Accessibility of Buildings [24]

	B.14	Rampanın taban uzunluğu (l) kaç cm'dir?	..........cm
*	B.15	Rampanın eğimini hesaplayınız. (Rampa eğimi h/l'dir.) h: 15 cm ve daha az ise eğim en fazla 1:10 (%10) h: 16 cm-50 cm arasında ise eğim en fazla 1:11 (%9) h: 51 cm-100 cm arasında ise eğim en fazla 1:12 (%8) h: 100 cm üzerinde ise eğim en fazla 1:16 (%6) olmalıdır. Aşılan yüksekliğe göre rampanın eğimi yukarıda verilen en fazla eğim derecesine uygun mudur? (Kademeli rampalarda her bir rampanın eğimi toplamda aşılan yüksekliğe göre en fazla eğim değerini geçmemelidir.) **RAMPA EĞİMİNİN HESAPLANMASI**	☐ Evet / ☐ Hayır
*	B.16	Rampanın başlangıç ve bitiminde tekerlekli sandalyenin manevra yapabileceği en az 150 cm x 150 cm'lik alan var mıdır?	☐ Evet / ☐ Hayır

It is significant that architectural and urban design practices to be carried out in a holistic manner, which can be better achieved by internalizing the unified design principles rather than by evaluating designs and checking design specifications on a case-by-case basis. Hence, for the case of Turkey, there is a crucial need to make a shift from right-based policy to implementation, and this process needs to be adequately monitored and evaluated based upon the broader human rights paradigm. In this manner, at what level applications of the national design standards affect the public spatial environments still remains an important question. This study argues that a unified and comprehensive accessibility planning approach should be developed with involvement of real users, rather than being based only on a literal application of design standards.

V. CONCLUSION

To overcome spatial problems in public life to the greatest extent possible, it is important to follow a social-based approach in the decision-making process for policy documents. The provisions of international and national legal documents based on accessibility issues are expressed how the development of policies changes from a medical-based perspective towards a socially based one. This is so important since legislative arrangements, such as laws, regulations and standards, have played a key role in creating an inclusive physical and social environment in response to the needs of PWDs. For real achievement in this regard, the philosophical perspective adopted in the decision-making process in enactment and architectural design and practice is important.

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REFERENCES

[1] Dinç Uyaroğlu, İ., *Performance Evaluation and Design Guidelines for Equitable Access of Students With Disabilities in University Campus Outdoor Environments*, Basılmamış Doktora tezi, ODTÜ, Ankara, 2015.

[2] Oliver, M., *Understanding Disability from Theory to Practice*. London: Macmillan Press, 1996,

[3] Seelman, K., "Trends in Disability: Transition from a Medical Model to an Integrative Model", in C. Reynolds, & E. Fletcher-Janzen, *Encyclopedia of Special Education.* New York: John Wiley & Sons, Inc., 2007.

[4] Barnes, C. and Mercer, G., *Exploring Disability: A Sociological Introduction,* 2nd ed., Cambridge: Polity Press, 2010.

[5] Barnes, C., "The Social Model of Disability: Valuable or Irrelevant?", in N. Watson, A. Roulstone, & C. Thomas, Eds., *The Routledge Handbook of Disability Studies*, London: Routledge, pp. 12-29, 2012.

[6] WHO (World Health Organization), *International Classification of Functioning, Disability and Health*, Geneva, Switzerland, 2001.

[7] Shakespeare, T. and Watson, N., "The social model of disability: an outdated ideology?". *Research in Social Science and Disability,* vol 2, pp. 9-28, 2001.

[8] Strange, C., "Creating Environments of Ability", *New Directions for Student Services,* vol. 91, pp. 19-30, 2000.

[9] Kroeger, S., "From the Special Issue Editor", *Journal of Postsecondary Education and Disability: Special Issue: Disability Studies*, vol 23(1), 3-4, 2010.

[10] Imrie, R., "From Universal to Inclusive Design in the Built Environment", in J. Swain, S. French, C. Barnes, and C. Thomas, Eds., *Disabling Barriers- Disabling Environments*, London: Sage Publications, pp. 279-284, 2004.

[11] Gillies, J., and Dupuis, S. L., "A framework for creating a campus culture of inclusion: a participatory action research approach", *Annals of Leisure Research,* vol 16(3), pp. 193-211, 2013.

[12] Barnes, C., "Understanding Disability and the Importance of Design for All", *Journal of accessibility and design for all,* vol 1(1), pp. 55-80, 2011.

[13] WHO (World Health Organization). (2011). *World report on disability.* Geneva, Switzerland. [Online]. Available: http://whqlibdoc.who.int/publications/2011/9789240685215_eng.pdf?ua=1

[14] DİE (Devlet İstatistik Enstitüsü), *Türkiye Özürlüler Araştırması [Turkey Disability Survey] 2002,* Ankara: Devlet İstatistik Estitüsü Matbaası, 2004.

[15] UN (United Nations). (2006). *Convention on the Rights of Persons with Disabilities.* [Online]. Available: http://www.un.org/disabilities/default.asp?id=150

[16] Ostroff, E., "Universal Design: An Evolving Paradigm", in W. Preise, and K. Smith, Eds., *Universal Design Handbook*, 2nd ed., New York: McGraw-Hill, pp. 1.3-1.11, 2011.

[17] Clarkson, P., Coleman, R., Keates, S., and Lebbon, C., *Inclusive Design: Design for the Whole Population,* London, UK: Springer-Verlag, 2003.

[18] Lissner, L. S., "Universal Design in the Institutional Setting: Weaving a Philosophy into Campus Planning", in J. Nasar and J. Evans-Cowley, Eds., *Universal Design and Visitability: From Accessibility to Zoning*, Ohio: The John Glenn School of Public Affairs, pp. 159-169, 2007.

[19] Loewen, G., and Pollard, W., "The Social Justice Perspective", *Journal of Postsecondary Education and Disability Special Issue: Disability Studies*, vol 23(1), pp. 5-18, 2010.

[20] Dinç Uyaroğlu, İ., "Beyond Compliance: Inclusive University Campus Design [Zorunluluktan Öte: Kapsayıcı Üniversite Yerleşkesi Tasarımı]". *Mimarlık*, vol 404, pp. 70-74, 2018.

[21] Disability Law no 5378, *Özürlüler ve Bazi Kanun ve Kanun Hükmünde Kararnamelerde Değişiklik Yapilmasi Hakkinda Kanun.* Kanun no: 5378. *Resmi Gazete,* 7.7.2005.

[22] ASPB (Aile ve Sosyal Politikalar Bakanlığı), *Accessibility Strategy and Action Plan 2010-2011* [Ulaşılabilirlik Stratejisi ve Eylem Planı 2010-2011], 2010.

[23] ASPB (Aile ve Sosyal Politikalar Bakanlığı), *Regulation for Monitoring and Controlling Accessibility* [Erişilebilirlik İzleme ve Denetleme Yönetmeliği]. *Resmi Gazete,* Sayı: 28713, 7.20.2013.

[24] İ. Çiftçi and D. Ç. Gümüş, Eds, *Erişilebilirlik İzleme ve Denetleme Formlari*, Eds Ankara: Aile ve Sosyal Politikalar Bakanlığı, Yayın No: 01, 2017.