

## Assessing Pedestrian-Oriented Aspect Focusing on the New Urbanism Approach on Sajjad Boulevard, Mashhad

Ghazaleh Rabbani Abolfazli

*M.Sc. in Geography and Urban Planning, Ferdowsi University of Mashhad, International Campus, Mashhad, Iran*

Mohammad Rahim Rahnama<sup>1</sup>

*Professor in Geography and Urban Planning, Ferdowsi University of Mashhad, Mashhad, Iran*

Barat Ali Khakpoor

*Associate Professor in Geography and Urban Planning, Ferdowsi University of Mashhad, Mashhad, Iran*

*Received: 20 September 2013*

*Accepted: 16 February 2014*

### Extended Abstract

#### 1. Introduction

Walking is one of the most basic means of moving throughout cities. Since the emergence of modernist urbanism, there has been an emphasis on developing cities to facilitate automobile rides which has led to paying little attention to providing suitable urban spaces for walking. However, such an approach has changed during the recent decades and streets are taken into consideration once more as a public urban space. New urbanism is one of the common approaches to modernize the cities. Given the transition from vehicle-oriented to human-oriented approach, it is of substantial importance to promote the pedestrian-oriented streets.

The general purpose of the present study is to investigate, assess, and improve the pedestrian-oriented approach on Sajjad Boulevard, Mashhad, in light of the new urbanism approach. This district was selected with respect to its demographic attraction along with its functions as a place for spending leisure time. The present study seeks to provide answers to the following questions: What are the main indices in assessing urban routes with respect to the new urbanism approach? What are the problems regarding the pedestrian-orientation approach on Sajjad Boulevard?

What strategies can be proposed to improve the pedestrian-oriented aspect on Sajjad Boulevard?

The following hypotheses guided the present investigation.

First- The effective indices on the pedestrian-oriented aspect are in compliance with the entire ten-fold principles of the new urbanism approach.

Second- Due to a set of obstacles such as the absence of walking facilities, inaccessibility to the public transport, etc., the pedestrian-oriented features of Sajjad Boulevard have been weakened.

#### 2. Methodology

The present study was conducted through the descriptive-analytical approach using case samples. Given the purpose of the study, this inquiry consists of two main parts:

Introducing indices and criteria of assessing the pedestrian-oriented aspect with respect to the new urbanism approach using library studies and assessing the indices using questionnaires, documentary studies, observations, analyzing the present maps, and softwares including GIS and SPSS.

#### 3. Results

In this study, the pedestrian-oriented indices were assessed with respect to the new

---

1. Corresponding author, E-mail: rahnama@um.ac.ir

urbanism approach on Sajjad Boulevard, Mashhad. Using tools such as observations, questionnaires, documentary studies, and map analysis, the following results were reached regarding each principle:

1. **Walkability:** Only the two indices sidewalk width and lighting have been positive, while flooring quality, urban furniture, W.Cs, and facilities for the disabled were considered as negative.
2. **Connectivity:** Both of the indices in this principle were positive.
3. **Mixed use (land use system):** As the indices including the presence of mixed use, attractive urban applications, and the block size index have been relatively positive, the principle was taken as positive.
4. **Presence of valuable elements (attraction):** As the indices including human scale and visual attractions were observed as relatively negative and positive, respectively, the principle is assessed as average.
5. **Conventional structure:** Depending on the maps regarding the historical process of the physical development of Mashhad's metropolitan area, there is no particular historical or architectural element representative of the special identity of this district. Consequently, the principle is assessed as relatively negative.
6. **Diversity:** While the first index was relatively negative, the two indices including diversity in bodies and diversity in buildings were observed as moderately positive, thus, the diversity principle on Sajjad Boulevard was taken as positive.
7. **Density:** The density principle was assessed as relatively positive as it was the case for the indices of residential and commercial densities.
8. **Green transportation:** The principle was assessed as average, given the fact that three indices were relatively positive, one index was relatively negative, and the other was negative.

9. **Environmental sustainability principle:** With two relatively positive indices and a relatively negative index, the principle is considered as relatively negative.

10. **Quality of life (Social):** As the number of pedestrians and safety were positive, and the walking culture was average, the principle is assessed as relatively positive.

Evaluating the pedestrian-oriented aspect of Sajjad Boulevard, the connectivity principle was assessed as positive indicating a more desirable status among the ten principles of the new urbanism approach. As the area of study was devoid of historical texture as well as special identity, the principle of historical structure can be considered as being in the most undesirable condition compared to the other principles of the new urbanism approach revealing that the district requires identity empowerment.

#### 4. Conclusion

In order to improve the pedestrian-oriented aspect on Sajjad Boulevard, Mashhad, 17 strategies were laid out, among which six were offensive, four were adaptive, three were contingent, and four were defensive. As the pedestrian-oriented aspects on Sajjad Boulevard were assessed as relatively positive, the route happened to be at an offensive state; consequently, priorities must be given to the strategies that can exploit the positive aspects. Six offensive strategies among the total of 17 are listed below in order of priorities:

1. Continuity in assigning purposeful roles for the route concerning urban applications
2. Attempts to promote investments and participations from Astan Quds Razavi
3. Strengthening and restoring social and physical values to conserve the identity of the route
4. Planning and designing walking spaces in order to strengthen social interactions as well as the pedestrian-oriented aspects

5. Organizing marginal green environments to provide urban spaces
6. Employing encouraging policies to establish applications with no time limits

**Keywords:** New urbanism approach, Pedestrian orientation, Urban routes, Assessment indices, Sajjad Boulevard, Mashhad.

### References (In Persian)

1. Ardam and Mehrazan Consulting Engineers. (1991). *Tarh jame. Mashhad* [The comprehensive plan of Mashhad] (Vol. 15). Mashhad, Iran: Ardam and Mehrazan Consulting Engineers.
2. Arendt, R. (2008). *The prism of new urbanism* (A. R. Danesh & R. Basiri Mozhdehi, Trans.). Tehran, Iran: Pardazesh.
3. Farnahad Consulting Engineering. (2010). *Tarh tose va omran (jame) kalan shahr Mashhad moghadas* [The comprehensive plan of development and reconstruction of Mashhad]. Mashhad, Iran: Farnahad Consulting Engineering.
4. Gharib, F. (2003). *Shabake ertebari dar tarahi shahri* [The communication network in urban design]. Tehran, Iran: University of Tehran Press.
5. Golkar, K. (2006). Monasebsazi teknik tahlili SWOT [Appropriating the analytical technique of SWOT]. *Soffeh*, 41, 2-21.
6. Kashanijou, K. H. (2006). Ahamiyat fazahaye piade dar shahrhaye hezare sevom [The importance of walking spaces in the cities of the third millennium]. *Journal of Research on Urban Construction*, 17-18, 40-51.
7. Kashanijou, K. H. (2010). *Piaderahha: Az mabani tarahi ta vizhegihaye karkardi* [Sidewalks: Theoretical foundation and functional characteristics]. Tehran, Iran: Azarakhsh.
8. Khazani Consulting Engineering. (1980). *Tarh tafsili kalanshar Mashhad* [The comprehensive plan of Mashhad]. Mashhad, Iran: Khazani Consulting Engineering.
9. Knoflach, H. (2002). *The principles of pedestrian and bicycles design* (F. Gharib, Trans.). Tehran, Iran: University of Tehran Press.
10. Mashhad Urban Railway Agency. (2013). *Shabake khotut haml o naghl reili* [Urban railway transit network]. Retrieved from <http://murco.ir/Default.aspx?tabid=873>
11. Masoumi, H., & Partoui, P. (2006). Osul jonbesh noshahrgerai [The principle of the new urbanism movement]. *Journal of Civil Engineering and Architecture*, 15, 28-32.
12. Mehdizadeh, J. (2000). Mafahim va mabani piaderahsazi [The concepts and foundation of building sidewalks]. *Municipalities*, 2(19), 12-18.
13. Ministry of Housing & Urban Development. (1996). *Aienname tarahi rahhaye shahri-bakhsh dah masirhaye piade* [The regulation for designing the urban roads- Region 10, sidewalks]. Tehran, Iran: The Center for Research and Studies on Architecture and Urban Development.
14. Moeini, M. (2006). *Afzayesh ghabeliat piademadari, gami besuye shari ensanitar* [Increasing the potentiality of sidewalks: A step towards a citizen-oriented city]. *Honarhaye-Ziba*, 27, 5-16.
15. Moeini, M. (2012). *Shahrhaye piademadar* [Pedestrian-oriented cities]. Tehran, Iran: Azarakhsh.
16. Pakzad, J. (2006). *Mabani nazari va farayand tarahi shahri* [The theoretical foundation and the process of urban designing]. Tehran, Iran: Shahidi.
17. Pakzad, J., & Souri, A. (2012). *Rahnamaye nourpardazi makanhaye shahri* [A guide to lighting in urban places]. Tehran, Iran: Armanshahr.

18. Parsoumash Consulting Engineering. (2012). *Tarh tafzili hoze miani gharbi* [The comprehensive plan of the mid-western area]. Mashhad, Iran: Parsoumash Consulting Engineering.
19. Part Consulting Engineering. (2001). *Tarh mantaghebandi va taen mahdudehay darary potansiel boland martabe sazi dar kalan shahr Mashhad moghadas* [The plan of region classification and determination of the areas with potentialities for building high-rise buildings in Mashhad]. Mashhad, Iran: Part Consulting Engineering.
20. Planning and Budget Organization. (1996). *Dastouramale tashilat piaderavi* [Sidewalk design guidelines]. Tehran, Iran: Planning and Budget Organization Press.
21. Road, Housing and Urban Development Research Center. (2008). *Zavabet va moghararat memari va shahrsazi baraye afrad malul jesmi-harakati* [The conventions and regulations of architecture and urban construction for disabled people]. Tehran, Iran: Road, Housing and Urban Development Research Center Press.
22. San Diego's Regional Planning Agency. (2009). *Planning and designing for pedestrians: Model guidelines for the San Diego region* (R. Basiri Mozhdehi, Trans.). Tehran, Iran: Tahan.
23. Shahidi, M. H. (2001). Hamlonaghl payadar shahri [Urban sustainable transportation]. *Research and Urban Planning*, 5, 88-93.
24. Shahidi, M. H. (2002). Hamlonaghl payadar shahri abzari baraye tahaghigh shahrhaye shahrvandmadar [Urban sustainable transportation as a tool for achieving the citizen-oriented cities]. *Research and Urban Planning*, 11-12, 6-15.
25. Sharifi, P., & Najafi Zand, H. (1994). *Raveshhaye Amari dar olum raftari* [Quantitative methods in behavioral sciences]. Tehran, Iran: Dana.
26. Soltan Hoseini, M., Poursoltani, H., Salimi, M., & Emadi, S. (2011). Emkansanji ghabeliat piaderavi dar fazaye shahri bar paye olguhaye toseye payadar va noshahrgarai: Motale moredi mahale Sa'adat Abad [Analyzing the potentiality of sidewalks in the urban space based on the pattern of sustainable development and new urbanism: A case study of Sa'adat Abad neighborhood]. *Research and Urban Planning*, 2(4), 43-56.
27. The Agency for Comprehensive Studies about Transportation and Traffic. (2012). *Bazbinieh tarh jame hamlonaghl va terafik; bakhsh aber piade* [Revisiting the comprehensive plan of transportation and traffic: Sidewalks] (Vol. 2). Tehran, Iran: Tehran Municipality.
28. The Deputy of Transportation and Traffic of Mashhad Municipality. (2013). *Naghsheh terafik anlayn kalan shahr Mashhad* [The map of online traffic of Mashhad]. Retrieved from <http://map.mashhad.ir/@36.30515,59.58473,13z>

### References (In English)

1. Abley, S. (2005). *Walkability scoping paper*. Retrieved from [http:// www. levelofservice. com/ walkability-research.pdf](http://www.levelofservice.com/walkability-research.pdf).
2. Arora, P. (2007). *Burnet avenue, Avondale neighborhood: Revitalization strategy* (Unpublished master's thesis). University of Cincinnati, Cincinnati, OH.
3. Berke, P. R., Macdonald, J., White, N., Holmes, M., Line, D., Oury, K., & Ryznar, R. (2003). Greening development to protect watersheds: Does new urbanism make a difference? *Journal of the American Planning Association*, 69(4), 397-413.
4. Bohl, C. C. (2000). New urbanism and the city: Potential applications and implications for distressed inner-city neighborhoods. *Housing Policy Debate*, 11(4), 761-801.
5. Boyko, C., Graeme-Evans, P., & Cooper, R. (2009). *Designing sustainable cities*. Oxford, England: Blackwell.
6. Brennan Ramirez, L. K., Hoehner, C. M., Brownson, R. C., Cook, R., Orleans, C. T., Hollander, M. ... Wilkinson, W. (2006). Indicators of activity-friendly communities: An evidence-based consensus process. *American Journal of Preventive Medicine*, 31(6), 515-524.

7. Forsyth, A., & Crewe, K. (2009). New visions for suburbia: Reassessing aesthetics and place-making in modernism, imageability and new urbanism. *Journal of Urban Design*, 14(4), 415-438.
8. Frank, L. D., Sallis, J. F., Conway, T. L., Chapman, J. E., Saelens, B. E., & Bachman, W. (2006). Many pathways from land use to health: Associations between neighborhood walkability and active transportation, body mass index, and air quality. *Journal of the American Planning Association*, 72(1), 75-87.
9. Jepson, E. J., & Edwards, M. M. (2010). How possible is sustainable urban development? An analysis of planners' perceptions about new urbanism, smart growth and the ecological city. *Planning Practice & Research*, 25(4), 417-437.
10. Kumar, R. (2009). *Walkability of neighborhoods: A critical analysis of zoning codes*. Cincinnati, OH: University of Cincinnati.
11. Larsen, K. (2005). New urbanism's role in inner-city neighborhood revitalization. *Housing Studies*, 20(5), 795-813.
12. Leather, J., Fabian, H., Gota, S., & Mejia, A. (2011). *Walkability and pedestrian facilities in Asian cities: State and issues*. Manila, PH: Asian Development Bank.
13. Meredith, J. R. (2003). Sprawl and the new urbanist solution. *Virginia Law Review*, 89(2), 447-503.
14. Moudon, A. V., Lee, C., Cheadle, A. D., Garvin, C., Johnson, D., Schmid, T. L... Lin, L. (2006). Operational definitions of walkable neighborhood: Theoretical and empirical insights. *Journal of Physical Activity and Health*, 3(1), 99-117.
15. Park, S. (2008). *Defining, measuring, and evaluating path walkability, and testing its impact on transit users' mode choice and walking distance to the station*. Berkeley, CA: University of California Press.
16. Shatfoe, H. (2008). *Convivial urban spaces: Creating effective public places*. London, England: Earthscan.
17. Shay, E., Spoon, S. C., & Khattak, A. J. (2003). *Walkable environments and walking activity*. Knoxville, TN: University of Tennessee Press.
18. Southworth, M. (2010). Designing the walkable city. *Journal of Urban Planning Development*, 131(4), 246-257.
19. Talen, E., & Koschinsky, J. (2011). Is subsidized housing in sustainable neighborhoods? Evidence from Chicago. *Housing Policy Debate*, 21(1), 1-28.
20. Tolley, T. (2003). *Providing for pedestrians: Principles and guidelines for improving pedestrian access to destinations and urban spaces*. Victoria, Australia: Department of Infrastructure.
21. Walters, D., & Brown, L. L. (2004). *Design first: Design-based planning for communities*. Oxford, England: Architectural.
22. Winstanley, A., Thorns, D. C., & Perkins, H. C. (2003). Nostalgia, community and new housing developments: A critique of new urbanism incorporating a New Zealand perspective. *Urban Policy and Research*, 21(2), 175-189.
23. Zehner, O. (2012). *Green illusion*. London, England: University of Nebraska Press.

**How to cite this article:**

Rabbani Abolfazli, Gh., Rahnama, M. R., & Khakpoor, B. A. (2018). Assessing pedestrian-oriented aspect focusing on the new urbanism approach on Sajjad Boulevard, Mashhad. *Journal of Geography and Urban Space Development*, 4(2), 1-24.

URL <http://jgusd.um.ac.ir/index.php/gud/article/view/26025>

**ISSN: 2538-3531**