



## Determining strategies for organizing marginalized areas and implementing them in the form of mathematical reconstruction (case study of Qanat Naseri neighborhood in Arak city)

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### Abstract

**Background and Objective:** The aim of the present study was to investigate urban regeneration and evaluate informal settlements with a case study of Qanat Naseri neighborhood in Arak city. Qanat Naseri neighborhood is one of the informal settlements that faces numerous challenges in physical, social, economic, and environmental dimensions. For this reason, it was necessary to identify the neighborhood's strengths, weaknesses, opportunities, and threats and provide solutions to organize them.

**Methodology:** The research method was descriptive-analytical and its purpose was applied. Survey and documentary methods were used to collect data and information. The statistical population of the study was the residents of Qanat Naseri neighborhood in the northeast of Arak. For this purpose, 37 educated residents of the area and 21 experts and specialists from the consulting company and the Arak Construction and Reconstruction Organization were selected and they answered the questionnaire questions. The collected data was analyzed using descriptive and inferential statistics and SWOT and QSPM models.

**Findings and Conclusion:** The findings showed that public participation, improving physical infrastructure, addressing environmental problems, and economic empowerment are among the key factors in regenerating this neighborhood. The analyses conducted showed that the Qanat Naseri neighborhood is located in the WO (conservative strategies) section of the SWOT matrix, which relies on using external opportunities to reduce internal weaknesses. Accordingly, it is necessary to use the marginal texture organization equation. In the absence of careful management and complete oversight, those with more power control all the resources and make things even more difficult for others. Sometimes, the government itself oppresses marginalized people by imposing restrictions or forced evictions. In such circumstances, the situation of each of the marginal areas should be analyzed separately and a solution should be proposed based on that. According to the findings of this study, marginal neighborhoods face numerous bottlenecks. The methods used for organization have not been very successful so far. According to this study, using the equation for organizing marginal textures does not have these shortcomings of previous methods. The second stage is dedicated to the preparation and transformation of the human condition. Ultimately, with the change in social status, positive and sustainable changes will occur in this area.

**Keywords:** Citizenship, ecosystem approach, right to city, urbanization, Mashh Organizing equation, urban regeneration, quantitative strategic analysis, Qanat Naseri neighborhood, Arak.

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## **Extended Abstract**

### **Introduction:**

There are different types of inefficient urban textures, each of which has specific conditions. For this reason, it is essential that these conditions are properly identified and an appropriate solution is chosen before any type of intervention is made. However, some necessities have caused city managers and officials to try to consider solutions that will quickly show the results of their efforts. But since such a process does not include all dimensions and angles of the issue into the equation, it not only does not improve the existing conditions, but also, despite the costs incurred, exacerbates the problems. Existing experiences indicate that interventions have mainly focused on physical dimensions and have neglected other conditions. For this reason, in recent years, attention has been paid to cultural, social, and other categories. But again, the positive consequences have not been enough to bring about dramatic developments in this area. The aim of the present study was to investigate urban regeneration and evaluate informal settlements with a case study of Qanat Naseri neighborhood in Arak city. Qanat Naseri neighborhood is one of the informal settlements that faces numerous challenges in physical, social, economic, and environmental dimensions. For this reason, it was necessary to identify the neighborhood's strengths, weaknesses, opportunities, and threats and provide solutions to organize them.

### **Methodology:**

The research method was descriptive-analytical and its purpose was applied. Survey and documentary methods were used to collect data and information. The statistical population of the study was the residents of Qanat Naseri neighborhood in the northeast of Arak. For this purpose, 37 educated residents of the area and 21 experts and specialists from the consulting company and the Arak Construction and Reconstruction Organization were selected and they answered the questionnaire questions. The questionnaire used was researcher-made, and its validity and reliability were confirmed by experts and Cronbach's alpha. The collected data was analyzed using descriptive and inferential statistics and SWOT and QSPM models.

### **Results and Discussion:**

This study focused on organizing the Qanat Naseri neighborhood in Arak city. For this purpose, first, capabilities, bottlenecks, opportunities, and threats were identified using the perspectives of the research participants. The findings showed that public participation, improving physical infrastructure, addressing environmental problems, and economic empowerment are among the key factors in regenerating this neighborhood. The analyses conducted showed that the Qanat Naseri neighborhood is located in the WO (conservative strategies) section of the SWOT matrix, which relies on using external opportunities to reduce internal weaknesses. Accordingly, it is necessary to use the marginal texture organization equation. In this process, first the political environment (active environment) is prepared and then the human conditions evolve and ultimately, with the change in social status, positive and sustainable changes will occur in this area. In fact, the solutions and policies that have been used so far to improve the conditions of the marginalized have it was not consistent with the nature and dimensions of the problems. Because weak governance or inadequate service provision allows for the spread of corruption and the occurrence of organized crime. In the absence of careful management and complete oversight, those with more power control all the resources and make things even more difficult for others. Sometimes, the government itself oppresses marginalized people by imposing restrictions or

forced evictions. In such circumstances, the situation of each of the marginal areas should be analyzed separately and a solution should be proposed based on that. Because in some areas, marginalization is due to the inability to meet basic needs, and in the rest, due to the lack of conditions for the construction and use of assets and the inability to access sources of power, and in a group, it is also caused by the inability to influence fate.

### **Conclusion:**

According to the findings of this study, marginal neighborhoods face numerous bottlenecks. The methods used for organization have not been very successful so far. According to this study, using the equation for organizing marginal textures does not have these shortcomings of previous methods. The second stage is dedicated to the preparation and transformation of the human condition. Ultimately, with the change in social status, positive and sustainable changes will occur in this area. Therefore, until these areas are eliminated, there is no hope for any kind of progress. For this reason, in successful experiences such as those in India, Brazil, and Bangladesh, efforts have been made to remove these obstacles by changing social situations, improving human conditions, and providing an active environment.

### **Declarations**

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**Conflict of Interest:** The authors declare no conflict of interest.

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### **References**

- Aalbers, MB. (2015). The Great Moderation, the Great Excess and the global housing crisis, *International Journal of Housing Policy*, 15, 43–60. <http://dx.doi.org/10.1080/14616718.2014.997431>
- Ahmadian, M. (1992). Marginalization. *Journal of the Faculty of Literature and Humanities, Ferdowsi University*. 3(3), 819-841. (In Persian) <https://www.noormags.ir/view/fa/articlepage/20551/>
- Alizadeh Aghdam, M. (2015). Marginalization. *Lifestyle Monitoring*, Volume 2, Number 11, pp. 109-115. (In Persian)
- All-Kamal, M. Nursey-Bray, M. & Hassan, S.M.M. (2021). Challenges to building social capital through planned adaptation: Evidence from rural communities in Bangladesh. *Current Research in Environmental Sustainability*. 3, 1-9. <https://doi.org/10.1016/j.crsust.2021.100091>
- Ardashiri, M., Zahid Zahedani, S. (1996), Study of some major economic, cultural and climatic factors of interprovincial migration in the period after the victory of the Islamic Revolution. Shiraz University Demographic Center Publications, Shiraz. (In Persian)
- Bianloo, Y. (2006). Investigating the relationship between demographic factors and ecological conditions with the type of crime and crime rate in Shiraz city. Master's thesis in social sciences. Shiraz University. (In Persian) <https://elmnnet.ir/vslgg?id=10947250-91361>
- Boateng G. O. & Adams, E. A. (2023). A multilevel, multidimensional scale for measuring housing insecurity in slums and informal settlements. *Cities*. 132, 1-15. <https://doi.org/10.1016/j.cities.2022.104059>

- CARE. (2006). Long Range Strategic Pla. Bangladesh. CARE: Dhaka.
- Chadwike, E. (1941). The Sanitary Condition of the Labouring Population of Britain. GRT, London. <https://navigator.health.org.uk/>
- Clinard, Marshal B. (1966). Slum and Community Development in Self Help, New York.
- Douglass, M. (2015). Creative communities and the cultural economy — Insadong, chaebol urbanism and the local state in Seoul. *Cities*, 56, 148–155. <https://doi.org/10.1016/j.cities.2015.09.007>
- Elias, Jr. C. E. (1966). *Metropolis: Values in Conflict*. Belmont, California.
- Fahmi, F. Z., Prawira, M. I., Hudalah, D., & Firman, T. (2016). Leadership and collaborative planning: The case of Surakarta, Indonesia. *Planning Theory*, 15(3), 294–315. <https://doi.org/10.1177/1473095215584655>
- Fathi, M. (2012). Factors related to the social health of teachers in Maragheh city. *Social Welfare*. 12(4), 243-225. (In Persian). <http://refahj.uswr.ac.ir/article-1-1130-fa.html>
- Goussous, J., & Tayoun, L. (2020). A Holistic Approach to Slum Reduction: Finding Gaps in Cairo's How-to-Deal' model with International Collected Experience. *Cities & Health*. 31(4), 1-15. <http://dx.doi.org/10.1080/23748834.2020.1735156>
- Hatami-Nejad, H., Zomordian, M. (1993). Study of the social and economic conditions of marginalized people in Mashhad city. Mashhad Municipality, Mashhad. (In Persian)
- Hosseinzadeh Dalir, K. (1992). Research project on marginalized people in Tabriz. Publications of the Urban Research Institute affiliated with the Humanities Committee of the Academic Jihad, Tabriz. (In Persian)
- Irandoost, K. (2010). *Informal Settlements and the Myth of Marginalization*. Urban Planning and Processing Company, Tehran. (In Persian) <https://www.gisoom.com/book/1727713/>
- Jun, K. N., & Musso, J. (2013). Participatory governance and the spatial representation of neighborhood issues. *Urban Affairs Review*, 49(1), 71–110. <https://doi.org/10.1177/1078087412453704>
- Knox, P. (1988). *Places and Regions in Global Context*. Book Care, New York. [https://www.amazon.com.be/-/en/Paul-L-Knox/dp/0131497057?language=en\\_GB](https://www.amazon.com.be/-/en/Paul-L-Knox/dp/0131497057?language=en_GB)
- Ministry of Interior. (2001). Management of National Planning Studies. *Quarterly Journal of Urban Management*, 2(6), 22-33. (In Persian)
- Mofidi, M., and Ghasem-Sharifi, T. (2019). Culture-based Re-creation with Emphasis on Sustainable Local Community Development (Case Study: Historical Context of Rah-Rey Neighborhood, Qazvin). *Geography and Human Relations*, 2(1), 268-301. (In Persian). [https://www.gahr.ir/article\\_92181.html](https://www.gahr.ir/article_92181.html)
- Moradi, G., Bakhshandeh, M. (2011). Investigating the role of social deprivation in creating aggressive behaviors among youth in Shiraz. *Research Quarterly of Azad University*. Volume 1, Issue 1, pp. 31-42. (In Persian) <https://ensani.ir/fa/article/363302/>
- Nabati, Q. (1978). Study of the housing situation of marginalized people. Bachelor's thesis, Shiraz University. (In Persian).
- Narayan, D. & Petesch, P. (2000). *Voices of the Poor; Crying Out for a Change*. World Bank: Washington, DC. <https://www.researchgate.net/publication/281100769>
- Nourbakhsh, Y., Heydarkhani, H., Mohammadi, A. (2017). Investigating the relationship between social support and social health of youth in marginalized areas of Kermanshah. *Iranian Social Issues Review*, 8(2), 257-233. (In Persian)
- Permana, C., Show, D. & Demeski, S. (2025). Towards a more collaborative planning process for traditional communities? A sociological-institutionalist analysis of the Kampong Kauman in Surakarta, Indonesia. *Cities*, 125, 1-13. <https://doi.org/10.1016/j.cities.2024.105669>

- Piran, P. (1987). Shed sitting in Tehran. *Journal of Political-Economic Information*. 23(17), 1-12. (In Persian) <https://www.noormags.ir/view/fa/articlepage/173512>
- Qaleh-e-Golabi, H. (1977). Survey of Urban Marginal Residents (Current Situation). Institute of Social Studies and Research, University of Tehran, Tehran. (In Persian).. <https://ensani.ir/fa/article/download/233084>
- Saberifar, R. (2009). History of Urban Planning Science. Payam Noor University Press, Tehran. (In Persian). <http://pnu.ac.ir/portal/home/>
- Saberifar, R. (2019). Investigating factors affecting people's participation in the regeneration of dilapidated urban textures, case study: Mashhad city. *Urban Ecology Research*, 13(3), 96-114. (In Persian) <https://doi.org/10.30473/grup.2020.46261.2346>
- Saberifar, R. (2022). Housing and Informal Settlement. Payam Noor University Press, Tehran. (In Persian)
- Saberifar, R. (2023a). Determining priority neighborhoods for regeneration in inefficient urban contexts based on innovation acceptance theory (case study: Torbat Heydariyeh city). *Human Settlement Planning Studies*, 18(4), 185-198. (In Persian). [https://journals.iau.ir/article\\_699647.html](https://journals.iau.ir/article_699647.html)
- Saberifar, R. (2023b). Designing a model to determine the contribution of factors affecting the return of marginalized people to the village; Case study: marginalized people, Housing and Rural Environment, 42(82), 110-95. (In Persian). <http://jhre.ir/article-1-2377-fa.html>
- Sabine G. (1964). A History of Political Theory. London: George G. Harrap. <https://www.amazon.com/History-Political-Theory-4Th-Edn/dp/8120417062>
- Sanderson, D. (2012). Building livelihoods to reduce risk among the most marginalized in urban areas: Strategic approaches from Dhaka, *Environmental Hazards*, <http://www.tandfonline.com/loi/tenh20>
- Sanderson, D. (2012). Building livelihoods to reduce risk among the most marginalized in urban areas: Strategic approaches from Dhaka. *Environmental Hazards*. 23, 1-11, <http://www.tandfonline.com/loi/tenh20>
- Zahidzhdani, S. (1980). Marginalization in Iran, Shiraz University, Shiraz. (In Persian) <https://www.shahrnegar.com/product/informalsettlement-tabriz>