Explanation of The Theoretical Model in Order to Improve the Identity of The Buildings' Facades in The Street View(Case Study: Valiasr Street, Tehran)

* Mahsa Haj Maleki1 iD   ** Khosro Daneshjoo iD   *** Azadeh Shahcheraghi iD

* Ph.D. student, Department of Architecture, Islamic Azad University, Science and Research Department, Tehran, Iran. mahsa.h.maleki@gmail.com

** Assistant Professor of Architecture Department, Tarbiat Modares University, Tehran, Iran. khdaneshjoo@modares.ac.ir

*** 3Associate Professor, Department of Architecture, Islamic Azad University, Science and Research Unit, Tehran, Iran. a.shahcheraghi@gmail.com

Abstract

The concept of urban identity in the process of cognition and perception presents us with a multidimensional and complex phenomenon. The physical identity of cities has become an influential category in city life. For this reason, in order to promote identity, this research tries to find the roots of the existing relationship in the field of urban landscape and facade of buildings, and after extracting and analyzing key parameters for the feasibility of approaching identity in this space, to compile a theoretical model with practical criteria for coordination. For the analysis, library sources were studied and then the effective factors in the facades with identity were investigated, then the existing buildings in Valiasr Street were analyzed to measure the obtained factors. A qualitative and quantitative case study method has been carried out to obtain information about the changes in the appearance of buildings over time. For quantitative analysis of data, software (SPSS) was used to provide statistical analysis of data, analysis and one-way analysis of variance (ANOVA) technique and factor analysis using varimax rotation were performed. The results show that each period of the evolution of Valiasr Street in Tehran has faced different types of modernity forces and finally, the most influential parameter on the enhancement of architectural identity on the facade of the buildings in the street view has been presented in the theoretical model.

Corresponding Author: Khosro Daneshjoo– khdaneshjoo@modares.ac.ir

Introduction

One of the important roles of architecture is to objectively achieve a sense of place, so that through such a sense, abstract space becomes a tangible place and achieves its character (Falahat, 2007). If in the atmosphere of the old Iranian city there was a connection and harmony with the climate and natural environment, this led to the use of natural materials, today and in the image of the The physical identity, which was the unity of form and shape of the spaces in the traditional city, has turned into heterogeneous and sometimes unconventional forms in the contemporary city, and as a result, it has also lost its identity (Mir Moqtadai, 2012). Furthermore, currently, throughout the world, many authors and scholars are working on a vital range of social science and humanities disciplines by concentrating on questions regarding the concept of identity and place identity. Traditionally, identity has been explained in terms of the social awareness of the self (Brown et al., 2019)

The necessity of conducting this research can be understood considering the visually disordered situation in the urban landscape and the uncoordinated appearance of many streets in Tehran. The specific goals of this research have been formed as follows:

- Presenting a theoretical model in order to promote identity in the urban landscape of contemporary Tehran based on the principles of stability and identity building in order to reduce the inconsistency and disorder of the street appearance.
- Acquiring effective and obvious factors in the formation of identity in the urban landscape in order to take advantage of the urban landscape of Tehran and the mentioned study case
- Providing a research whose results can be used in obtaining the appropriate tools for understanding the architecture of the urban landscape of Tehran used by responsible bodies.

Research questions

How to identify identity criteria in the view of buildings in Valiasr street view of Tehran?

By case-by-case qualitative study of facades in Valiasr Street and extracting quantitative results from the qualitative study, it is possible to identify the criteria of identification in the men of the study and to express the degree of change of each parameter.

Methodology

This research seeks to investigate ways to improve identity in the architecture of Valiasr street in Tehran. To achieve this goal, first, the analysis of library resources and the investigation of the effective factors in the facades with identity, then to measure the obtained factors, the analysis of the existing buildings in Valiasr Street will be analyzed. A qualitative case study method has been carried out to obtain information about the changes in the appearance of buildings over time. In this research, an attempt has been made to explain the physical characteristics of the facades of buildings in different periods of Tehran, Valiasr St. (between Parkway Bridge and Tajrish Square. This is to show how facades of buildings are formulated in the context of the city of Tehran as physical aspects of architectural identity. The idea of using the qualitative case study method is:

• Show the degree of change for each parameter in the theoretical model
• Identifying the characteristics of the facade of buildings in each period
• Investigating the differences in the style of the facade of the building between periods in terms of architectural identity

Methods used to collect qualitative data included direct observation and documentation of visual characteristics. Observations with a photographic study to record and document the appearance of buildings. These analyzes were performed to assess the degree of change for each parameter in the checklist factors, followed by comparative analyses.. Finally, after comparing the factors of the checklist, the most important ones were named as the main variables and were analyzed in the quantitative analysis of the research. In order to

quantitatively analyze the data, the software (SPSS) was used to provide statistical analysis of the data, descriptive analysis to meet the research objectives, to meet the requirements of identity in the street view, from the one-way variance analysis technique (ANOVA) and factor analysis using varimax rotation were performed to obtain a clear pattern of factor loadings.

Quantitative analysis- Questionnaire measurement scale in research
Numerical measurement of features in terms of measurement scales is useful in quantifying various aspects related to identity issues in architecture. Therefore, this research assigned a five-point Likert scale tool to measure respondents' perception in the field of architecture.

Conclusion
The results of the factor analysis show that it is possible to analyze and reach final conclusions in the form of a proposed theoretical model that includes five mass and detail parameters, building facade openings, facade architectural details, facade materials, and facade arrangement principles. The first parameter (mass and joint) was reduced from six dimensions to three dimensions, that is, (1) the geometry of the facade covering, (2) the direction of the facade, and (3) familiarity with the elements of the facade have changed. The second parameter (view openings) remained unchanged. The third parameter (facade architectural details) was rearranged into two dimensions, namely (1) the mechanism of architectural details and (2) the improvement of architectural details. The fourth parameter (facade materials) has been rearranged in similar cases which are (1) material stability, (2) material color, and (3) roof material. The last parameter (facade layout principles) has changed from five dimensions to four dimensions, namely (1) strength, (2) integrity, (3) regularity, and (4) complexity. These parameters, according to the results obtained from the qualitative analysis and documentation with checklists and questionnaires, and their quantitative analysis with the two mentioned techniques, and their priority in the presented theoretical model, show the degree of influence of that factor in The promotion of identity in the urban landscape is a case study. Therefore, factors such as facade geometry, orientation and type of   detailed facade are the most important factors and the arrangement of elements and details in the facade are the least important.

References
Brown, K., Adger, W. N., Devine-Wright, P., Anderies, J. M., Barr, S., Bousquet, F., Quinn, T. (2019). Empathy, place and identity interactions for sustainability. Global environmental change, 56, 11- 17.
Falahat, M. S. (2007). Concept of sense of place and the factors forming it. Fine arts publication, 26., 57- 66.
Mir Moqtadaei, M. (2012). Doctoral dissertation on the comparative comparison of the street scene in the contemporary history of Tehran. University of Tehran,30.