Collective Spaces in Achieving Social Sustainability

The outdoor collective spaces in most residential areas play a major role in social stability and unification. These are important components of the housing environment because they provide places for complimentary activities of housing units, mainly social interaction. Thus, good outdoors should ensure good social relations, a good sense of belonging to the place, and a stable social life for the residents.

1. Introduction

The outdoor collective spaces in most residential areas play a major role in social stability and unification. These are important components of the housing environment because they provide places for complimentary activities of housing units, mainly social interaction [1][2][3]. Thus, good outdoors should ensure good social relations, a good sense of belonging to the place, and a stable social life for the residents [4]. Accordingly, providing collective outdoor spaces that are easily accessible from all houses should be the purpose of the designer to meet the basic needs of the residents.

2. Traditional Cul-De-Sacs

Cul-de-sac is a French term that means a road with a closed-end or a way without an exit [5]. In terms of housing design, it is a type or pattern of domestic streets or passageways which is dead-ended and used mainly for pedestrians [6]. Today, the cul-de-sac is widely used in residential street planning because they are an efficient way of reducing the total used area of streets and crossing points. Moreover, it creates a suitable environment for pedestrians in housing areas [7]. Because of that, it is common in urban areas around the world, both in traditional and contemporary housing design.

However, the concept of the cul-de-sac in the traditional architecture of Arabic cities goes beyond a simple dead-end street. Cul-de-sacs could be a generator for the unique organization of Arab cities, which were built in successive phases to meet the users' gradual needs [8]. It was an important organizing component that played a major role in generating the homogenous fabric of the old cities [9]. Thus, the cul-de-sac became a central urban space located in the center of each group of clusters in the traditional residential areas. The summation of these groups with their central cul-de-sac could successfully generate a wide range of compact fabric in a form of endless clusters [10].

Cul-de-sacs are collective spaces in traditionally residential areas that play a major role in social unification. These are important components of the housing environment because they provide places for complimentary activities of housing units, mainly social interaction. Thus, good outdoors should ensure good social relations, a good sense of belonging to the place, and a stable social life for the residents. The cul-de-sac is also a tool for enhancing social belonging to their territory; hence, many scholars have studied the potential of the cul-de-sac for increasing the social quality of the contemporary housing environment compared to grid streets [11][12][13]. Other scholars have concentrated on the safety benefits of using the cul-de-sac in planning housing areas [10]. Moreover, such types of streets can be perfectly designed for providing privacy for a group of housing units in the neighborhood [12]. In addition, the cul-de-sac used to be a symbol of the need for privacy from public areas. An important reason for using it in traditional housing is to define the territory for a specific group of inhabitants in the city [14]. It has also been considered as a shared space for limited income housing instead of private inner spaces (courtyards) for houses of wealthy people. Through architectural treatments, elements of the cul-de-sac are delivering a strong message of privacy for the inhabitants by using "small entrances", which give the feeling that that area should not be trespassed upon without permission [15].

For all these benefits, cul-de-sacs have been the main collective spaces in the Palestinian cities throughout history. They have been used for doing daily activities and socializing. They have had an important effect on maintaining the privacy of the houses and encouraging social activities for residents. The demand of the Palestinian family for privacy inside homes has controlled the attitude of people when choosing their place of living. However, the need for privacy is an important

human need that may contradict other human needs such as social interaction [16]. Palestinian families seek for social interaction with neighbors and guests, in a way that protects the privacy of the family [17]. Hence, seeking privacy and social interaction simultaneously is a dilemma that historically assisted in shaping the built environment in Palestinian cities [18]. Accordingly, cul-de-sacs are likely to be the urban elements for solving this dilemma.

It is believed that taking such traditional streets into account in contemporary planning is a step toward sustainable communities [19]. Many countries have realized the necessity of recovering their ancient cities and working to integrate traditional concepts into contemporary life. For that reason, learning from traditional concepts is an important approach to contemporary housing design [20]. Approaches for using the traditional urban planning forms in contemporary cities to strengthen social life have been the objective of several studies [21][22][23]. Moreover, the adaptation and learning from the traditional urban forms in the traditional city can help to distinguish the social identity of the residents in contemporary cities [24]. On the other hand, the cul-de-sac can lead to territoriality and gated communities if there is a lack of interconnection with the neighboring communities [25]. In certain communities such as in Palestine, this is enhancing privacy. Thus, recovering the components of traditional cities gives the community its character and distinction. Researchers have also shown that recovering the traditional concepts in a contemporary way could assist in the continuity of the cultural and social characteristics of the community [26].

3. Social Sustainability in the Built Environment

Social sustainability as a pillar for sustainable development is the focus of this research because there is limited researches on this pillar compared to other pillars; economic and environmental sustainability [27]. Social sustainability is defined as the continuity and the stability of the social environment in everything related to society or its organizations, while sustainability means the ability to continue or for something to be continued for a long time [28].

Before proposing the cul-de-sac as a design approach for outdoor collective spaces, it is important to understand the relationship between the built environment and social sustainability, because all physical components of the housing environment such as houses, services, collective, and common spaces will affect social sustainability [29]. There have been many interpretations for clarifying social sustainability; this research discusses those more related to the built environment. Bramley et al. [30] argued that social sustainability relates to two factors: the first is social justice; which includes access to services and opportunities, and the second is the sustainability of communities, which includes various dimensions such as belonging to the neighborhood, social interaction, security, environmental quality, home satisfaction, stability, and participation in collective civic activities. Hancock [31] concentrated on the provision of services and activities that formulates an adequate environment of social interaction, which constitutes an important and necessary infrastructure for social sustainability. Polese and Stern argued in their book Social Sustainability of Cities that social sustainability was based on supporting the environmental connection with the sociocultural desires of the groups, encouraging social integration, and improving the quality of life for all segments of the population. Another study has considered four factors that guide the social sustainability: justice, security, adaptability, inclusion or social interaction as the principles of social sustainability [32].

References

1. Porotto, A.; Ledent, G. Crisis and Transition: Forms of Collective Housing in Brussels. Buildings 2021, 11, 162.

2. Perović, S.K.; Šestović, J.B. Creative Street Regeneration in the Context of Socio-Spatial Sustainability: A Case Study of a Traditional City Centre in Podgorica, Montenegro. Sustainability 2019, 11, 5989.

3. Do, D.T.; Mori, S.; Nomura, R. An Analysis of Relationship between the Environment and User's Behavior on Unimproved Streets: A Case Study of Da Nang City, Vietnam. Sustainability 2019, 11, 83.

4. Dragutinovic, A.; Pottgiesser, U. Reuse of common space as a tactic for mass housing revitalization. In Proceedings of the 16th International docomomo Conference Tokyo Japan 2020+ 1, Inheritable Resilience: Sharing Values of Global Modernities, Tokyo, Japan, 29 August–5 September 2021.

5. Rey, J.R.-D. Le Nouveau Petit Robert; Le Petit Robert: Montréal, QC, Canada; Paris, France, 1994.

6. Sheppard, M. Essentials of Urban Design; Csiro Publishing: Clayton, Australia, 2015.

7. Eisner, S.; Gallion, A.; Eisner, S. The Urban Pattern; John Wiley & Sons: New York, NY, USA, 1993.

8. Ragette, F. Traditional Domestic Architecture of the Arab Region; American University of Sharjah: Sharjah, United Arab Emirate, 2003.

9. Dumper, M.; Stanley, B. Cities of the Middle East and North Africa: A Historical Encyclopedia; ABC-CLIO: Santa Barbara, CA, USA, 2007.

10. Rapoport, A. House Form and Culture; Prentice-Hall: Englewood Cliffs, NJ, USA, 1969.

11. Brown, B.B.; Werner, C.M. Social Cohesiveness, Territoriality, and Holiday Decorations: The Influence of Cul-de-Sacs. Environ. Behav. 1985, 17, 539–565.

12. Cozens, P.; Hillier, D. The Shape of Things to Come: New Urbanism, the Grid and the Cul-De-Sac. Int. Plan. Stud. 2008, 13, 51–73.

13. Rachele, J.N.; Learnihan, V.; Badland, H.M.; Mavoa, S.; Turrell, G.; Giles-Corti, B. Neighbourhood socioeconomic and transport disadvantage: The potential to reduce social inequities in health through transport. J. Transp. Health 2017, 7, 256–263.

14. Signoretta, P.; Cuesta, R.; Sarris, C.; Signoretta, P. Urban Design: Method and Techniques; Routledge: Oxford, UK, 2003.

15. Hakim, B.S. Arabic Islamic Cities: Building and Planning Principles; Routledge: New York, NY, USA, 2013.

16. Hall, E. The Hidden Dimension; Anchor Books: New York, NY, USA, 1966.

17. Al-Amad, E. Continuity and Change in Traditional Domestic Architecture of Palestine: Transformation of Traditional Concepts of House Design in Nablus; University of Glasgow: Scotland, UK, 1998.

18. Itma, M. Impact of Sociocultural Values on Housing Design in Palestine. In Climate Change and Sustainable Heritage; Cambridge Scholars Publishing: Newcastle, UK, 2018; pp. 130–142.

19. Sharifi, A.; Murayama, A. Changes in the traditional urban form and the social sustainability of contemporary cities: A case study of Iranian cities. Habitat Int. 2013, 38, 126–134.

20. Al-Amad, E.M. Traditional Concepts and New Housing Design in Palestine. Open House Int. J. 2003, 28, 58–67.

21. Furuseth, O.J. Neotraditional planning: A new strategy for building neighborhoods? Land Use Policy 1997, 14, 201–213.

22. Ford, L.R. Lynch revisited: New urbanism and theories of good city form. Cities 1999, 16, 247–257.

23. Choguill, C.L. Developing sustainable neighbourhoods. Habitat Int. 2008, 32, 41–48.

24. Nikeghbali, S. Adapting Design Principles of Traditional Courtyard Housing for Future Urban Design. J. Sustain. Dev. 2017, 10, 200.

25. Charmes, E. Cul-de-sacs, Superblocks and Environmental Areas as Supports of Residential Territorialization. J. Urban Des. 2010, 15, 357–374.

26. Hochschild, T.R. The Cul-de-sac Effect: Relationship between Street Design and Residential Social Cohesion. J. Urban Plan. Dev. 2015, 141, 5014006.

27. Sassi, P. Strategies for Sustainable Architecture; Taylor & Francis: New York, NY, USA, 2006.

28. Oxford Dictionaries. 2022. Available online: https://www.oxfordlearnersdictionaries.com/definition/english/sustainability?q=sustainability (accessed on 21 January 2022).

29. Abed, A.; Al-Jokhadar, A. Common space as a tool for social sustainability. Neth. J. Hous. Built Environ. 2021, 37, 399–421.

30. Bramley, G.; Brown, C.; Dempsey, N.; Power, S.; Watkins, D. Social Acceptability. In Dimensions of the Sustainable City; Springer: Dordrecht, The Netherlands, 2010; pp. 105–128.

31. Polese, M.; Stren, R.E. The Social Sustainability of Cities: Diversity and the Management of Change; University of Toronto Press: Toronto, ON, Canada, 2005; p. 75. ISBN 080208320X.

32. Ghahramanpouri, A.; Saifuddin, A.; Sedaghatnia, S.; Lamit, H. Urban Social Sustainability Contributing Factors in Kuala Lumpur Streets. Procedia-Soc. Behav. Sci. 2015, 201, 368–376.