Measuring the Quality of Public spaces in Traditional and Governmental Neighbourhoods , Misurata City

Ibrahim Abaid
Department of Architecture and Urban Planning
*Misurata University, Libya*

Abstract— **One of the major indicators of urban quality and residents' levels of satisfaction in city neighbourhoods is the public space. In Libya, in 2005, the government introduced a redevelopment scheme to provide new homes to the local residents and to build thousands of new housing units around the country. This initiative was to offset the shortage in housing numbers due to the rapid population growth and urbanisation. In 2011, 79% of the country's population lived in urban areas. This high demand for housing drove significant changes to the urban planning composition of the country, particularly the residential areas. This paper focuses on two examples of typical neighbourhoods as case studies in Misurata City. It investigates the role of public spaces in the traditional neighbourhoods (TNs) and the governmental neighbourhoods (GNs). It examines the relationship between the residents of public spaces in both types of neighbourhood in terms of social integration. In addition, the researcher examines whether this new strategy has affected the social relationships within the local community or not, and assesses the extent of the possible impact on the daily activities of residents.**

Index Terms: **public space quality; community cohesion; social satisfaction.**

I. INTRODUCTION

This paper assesses the impact of the Libyan government's efforts to construct a large number of housing units, not only in Misurata City but all around the country. The policy of a 20-year development plan was intended to address a housing shortage as well as regulate rapid urbanisation as seen in Figure 1, this was planned for the period from 2005 to 2025. The government's construction of new housing units aims to provide comprehensive neighbourhood projects in line with the increase in the population.The government claims that this new strategy aims to fill the shortage of houses within the shortest period of time - a period of five years initially as the first stage of 20-year plan. Therefore, a phenomenon of establishing communities with mixed users has newly emerged in Libya, which is different than traditional residential settings. The Traditional Neighbourhoods (TNs) often include families who have lived together as neighbors for a long period of time where all residents know each other very well, this type of neighborhood usually has strong community cohesion. However, the Governmental Neighborhoods (GNs) have resulted in less social cohesion due to differences in the cultural backgrounds of their residents (Zhang and Lu, 2015). Therefore, this research attempts to assess the quality of both types of neighbourhood – GN and TN – from a social perspective through deep qualitative discussion in order to establish a specific framework for future neighbourhood projects which may contribute to the urban development of the city, and indeed, to other cities in Libya.
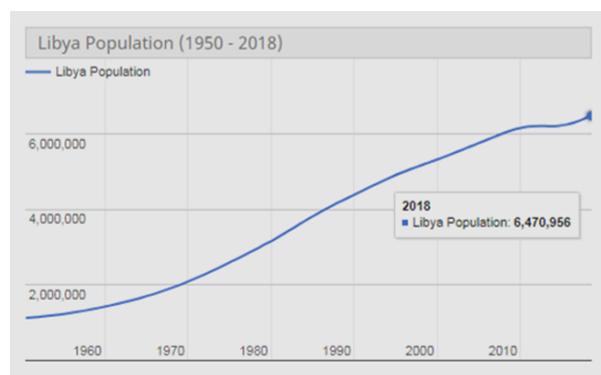
Figures 1. The Libyan population in 2018 and the increased line of the population each year, (Worldmeters, 2018)

In this research, 'public space' is presented as a space being used and shared by all the people who live in the neighbourhoods of the city regardless of their age, gender, status, and cultural backgrounds (Iveson, 2011). Examples of forms of public space in the neighbourhoods are parks, squares, gardens, children's playgrounds, and green spaces (Madanipour, 2013). These public spaces play a significant role in the urban development and quality of life (Das, 2008). This research investigates the levels of social satisfaction of those residents who use the

public spaces in their community. To achieve this, the quality and effectiveness of the public space within the neighbourhoods are examined by measuring the availability and provision of many elements such as playgrounds, facilities, and green areas (Kim and Kaplan, 2004). In addition, the research examines the social aspects and the levels of interaction between the residents (Cattell et al., 2008). Due to the moderate temperature and humid conditions in this region throughout most of the year, people tend to use open public spaces in all seasons, enclosed spaces are unpopular because of the climate conditions. Therefore, this research focuses on the open public spaces of neighbourhoods, it focuses particularly on in Misurata city, Libya, while taking into account the advantages of the weather conditions in this region.

II. RESEARCH CONTEXT

Building a large number of houses within a short space of time, has the potential to negatively impact the residents concerned through such issues as social isolation, less interaction between residents, and community disorder (Behrad and Bahrami, 2015). Potentially, the new residents of these new neighbourhoods will not know each other before they move to the area, because they are likely to come from different parts of the city, and probably from other cities in the country as well. As a result, they are not necessarily ready to engage in strong interaction and social communication with their neighbours who are strangers to them. Furthermore, the new neighbourhoods contain hundreds of housing units, not only occupied by users from different areas or cities, but also from a diversity of backgrounds, thus, they have different habits, status, education levels, and mentality. This large number of residents, with so many meeting for the first time, can make social interactions and involvement in social activities challenging, and this includes the sharing of public spaces in their new neighbourhood. In order to provide opportunities for these residents to interact and participate effectively in the public spaces around them, it is important to know how the residents feel about themselves and about others, how they use the open spaces around their houses and what activities link their interests. Creating sensible, attractive spaces for users encourages them to engage and interact with others, which is the first step toward the achievement of an enriched community. Watson and Kessler (2013) refer to evidence which shows that the design concept and green areas have fundamental impacts on the users in these neighbourhoods in many aspects, e.g., their health, comfort, and feelings of safety and security (Jalaladdini and Oktay, 2012). Thus, the investigation should not ignore the physical and aesthetic characteristics of the neighbourhood, such as sidewalks (paths), seats, green areas, and playgrounds. This will enable the planners to gain insights into the composition of the community and evaluate the impact of these elements on the local community.

III. METHODOLOGY AND CASE STUDIES

This research adopts a mixed methods approach by employing qualitative and quantitative methods, utilising interviews and questionnaires respectively, to undertake case studies of two neighbourhoods in Misurata City, Libya. In-depth interviews comprised three categories, a) residents, b) decision makers, and c) professionals; and a total of 200 questionnaires were distributed among the neighbourhoods' populations. Additionally, to address possible limitations at the data collection stage, the researcher used site observations to focus on the residents´ activities as a supporting tool. The results showed that residents in traditional neighbourhoods (TNs) perceive a stronger attachment to their community, they feel more socially satisfied and comfortable than counterparts in the government neighbourhoods (GNs). Findings also highlighted that when the public spaces in the neighbourhoods are well-facilitated and offer an appropriate range of amenities, this impacts positively on the social satisfaction of the residents. Additionally, it was found that the relationships among the neighbourhood residents play a key role in improving and promoting their social satisfaction, which, in its turn, contributes to high-quality communities. It is expected that the findings of the research may assist the development of the quality of urban life in significant parts of the city.

The case study involves two sites in the city of Misurata, Libya, see Figures 2-a, 2-b, 2-c and 2-d for the locations of the city. The sites are: a) Site 1, named 'Almegawba', which is a traditional neighbourhood (TN): and b) Site 2, named '9th July', which is a government neighbourhood (GN), (see Figures 3-a, and 3-b). The quantitative data gathered from the questionnaires were analysed using the statistics software 'SPSS' or the analysis of the qualitative data gathered from the in-depth interviews Nvivo (version 10) software was used. A mixed strategy was used for data collection, this included random and snowball sampling policies, to ensure the accuracy of the information and to avoid biased answers, as explained in more detail below (Woods et al., 2015).

Figure 2-a. Location of Libya in Africa, (Atlas, 2009) accessed 17/03/2019 12:37 pm

Figure 2-b. Location of Libya and the main cities, (Atlas, 2009) accessed 17/03/2019 12:37 pm

Figure 2-c. The location of Misurata city in Libya, (AAAS, 2017), accessed on 25/12/2019, 13:05 pm
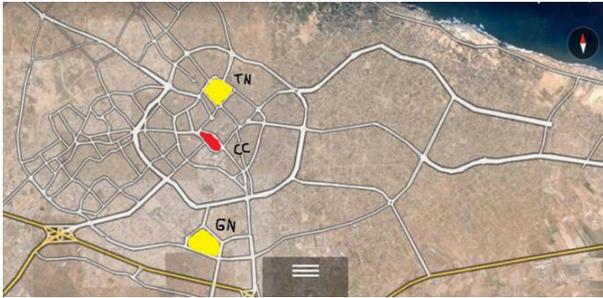

Figure 2-d. Location of the case study sites: a): Almegawba TN, b): 9th July GN, c): city Centre CC. Source: Google Earth map

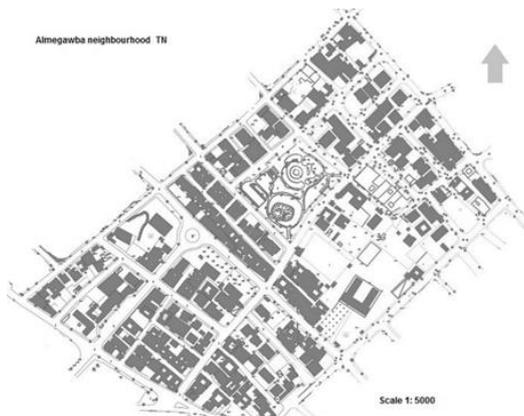Figure 3-a. The map of 9th July GN site in scale 1 : 5000

Figure 3-b. The map of Almegawba TN site in scale 1: 5000

3-1 Questionnaires

Oppenheim (2000, p43) stated that 'A sample's accuracy is more important than its size'. That is, a sample of 2000, for instance, can provide more reliable results from a population of millions than can a smaller sample size. In order to define the appropriate size of the survey sample, tables were used with a precision (e) of +/- 10%, and from the population of 2000-3000 in the sample sites, 80 participants were determined to be adequate sample size, providing a confidence level of 95% (Israel, 1992, Kotrlik and Higgins, 2001). Consequently, two hundred (200) questionnaires were sent to the residents of the two sites; they included a number of open-ended, closed, and multi-choice questions. A total of 158 questionnaires were returned, 81 from the Almegawba neighbourhood, and 77 from 9th July neighbourhood.

3-2 Sampling strategy

A sample selection was obtained using a snowball technique, 'this involves asking people who have participated in a survey to nominate other people they believe would be willing to take part. Sampling continues until the required number of responses is obtained' (Kitchenham and Pfleeger, 2002 , p19). Participants agreed to take part in the research through an invitation from other residents, and so on. Data collection was stopped when the appropriate number of questionnaires (81 for the TN and 77 for the GN) was reached and repetitive responses from the last few participants were noticed (Kotrlik and Higgins, 2001).

3-3 Interviews

In-depth interviews were conducted to generate further understanding of the existing situation, as well as to gain clearer information about the quality of the public spaces in the case study sites. They also enabled the researcher to collect appropriate evidence to clarify and solve the research question. The interviews also helped create a coherent framework for use in future policies. A total of 16 interviews were conducted during the field work as follows: four decision makers (government officials); four professionals (independent/private sector); four GN residents; and four TN residents.

The research approach adopted here is designed to find evidence about the positive features of the public spaces in the neighbourhoods. Decisions concerning data collection techniques were formed to explore answers to the research questions, and to identify the appropriate tools required to clarify the conditions of the public spaces qualities in the selected neighbourhoods. The research questions are:

How do public spaces in the neighbourhoods improve and enhance the quality of residents' lives, and how does this affect the sense of community and social cohesion of the community?

Why is it important to develop the public spaces in the neighbourhoods? To what extent does the public space enrich the quality of the urban design of the city?

Do residents feel socially satisfied with the quality of public spaces in their neighbourhoods?

The data collection tools were structured to provide information as follows:

How do people feel about the space that should be shared for public activities? Do they obtain benefits from their functional purpose, or not?

Why do people use this space, and when? Are they socially satisfied with the quality of the existing public space?

Are public spaces in the neighbourhoods suitable for all the residents' groups, such as children, youth, and adults, and the elderly on one hand, and males/females on the other?

IV. DISCUSSION AND FINDINGS

The residents' relationships

The focus of this paper is on the social side of residents' relationships with each other in the public spaces in their neighbourhoods. These relationships are one of the most fundamental issues facing urban quality in Libya (Salhin, 2011). In the following section, their significance is illustrated along with their impact on the urban development of the residential areas, including both of the common types of neighbourhoods in the local region – GN and TN.

The social interaction between the residents

The establishment of effective relationships between the neighbours depends on many factors. One of the most important steps to be taken is to create the opportunity for neighbours to meet and interact. Public spaces allow such opportunity as they provide places for the residents to become involved in a range of activities. Behrad and Bahrami (2015, p. 89) clearly state that 'People have an innate need to establish social relationships and therefore, they can provide opportunities so they can experience the social relationships'. Social relationships in the local communities of Libya are one of the most important features that all the residents appreciate and try to improve because they impact the social satisfaction and psychological comfort within the neighbourhood. This is seen throughout Libyan history, where more than 40 traditional terms explain the importance of the neighbour-ship: for example, 'people should buy the neighbour before the house'; and "be neighbour of the happy people [and] you will be happy" (Mohamad, 2005, p. 1), [translated by author].

The collected data reveals, that the relationship in both of the research neighbourhoods is one of the strongest characteristics in the local community. Firstly, Figures 4, and 5 show that around 75% of the participants either agree or strongly agree that residents should have a good relationship, support each other, and exchange favours. This belief, expressed by the majority of the respondents, reflects their perception of the residents' attitudes toward the value of social relationships. The results are similar in the two types of neighbourhood, which indicates the strength of this element. However, this result shows what it is that the residents' desire, not what has been achieved. The evaluation of the current situation indicates that the failure to achieve this desire in the GNs is due to the lack of social interaction and a low level of involvement in the

public sphere. Therefore, this point can be considered as a permanent characteristic of the local community which is desired by all types of resident groups, regardless of the changes in the neighbourhood variables.
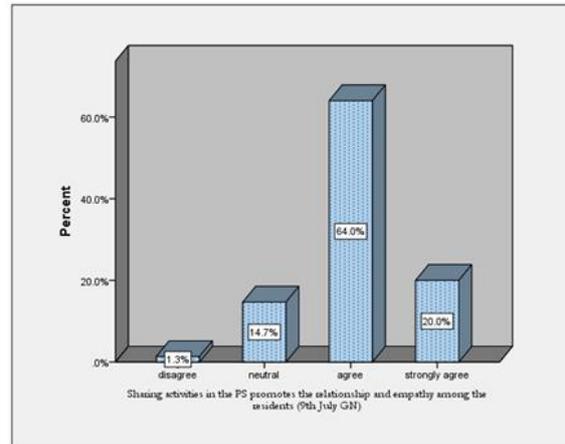

Figure 4. Responses to the statement ' Sharing activities in the POS promotes the relationship and intimacy among the residents', 9th July GN
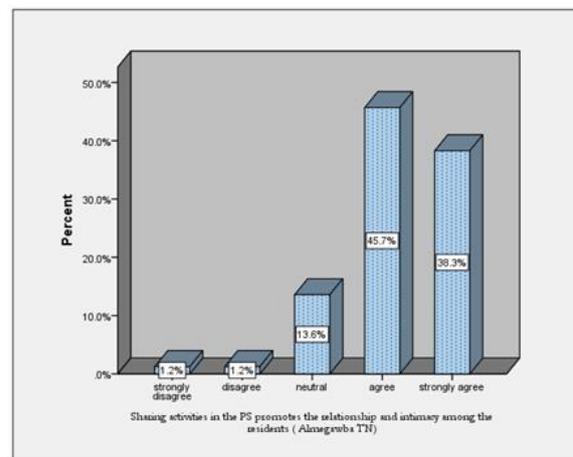

Figure 5. Responses to the statement ' Sharing activities in the POS promotes the relationship and intimacy among the residents', Almegawba TN

Almost all interviewed participants provided similar information. The interview data showed a strong desire from the majority of the respondents to have an active and positive relationship with their neighbours. Moreover, most participants pointed out that the neighbourhoods' public spaces are the most appropriate place to practice their social activities. For example, activities such as watching children in the playground, sitting in groups or families, and walking in the public spaces increases the interaction and the communication between residents. Behrad and Bahrami (2015, p 92-93) findings from a similar research study in the Pavan Residential Complex of Sanandaj, Iran reflect this point:

On the other hand, some of the participants from 9th July GN expressed their disappointment at the minimal opportunities for communication with other residents in their neighbourhood due to lack of quality public spaces. Residents have less chance to build relationships with their neighbours through interaction during activities in

what they perceive as poor quality public spaces. As a result, many of them have a strong relationship and social communication with their close neighbours, which may comprise about four to six nearby families, rather than with the whole neighbourhood, as is the case in the TNs. This has limited the range of communication with the rest of the neighbourhood residents to the very important and large events, and has also created small groups of families who are strongly connected to each other rather than integrating the whole neighbourhood.

In Libya, children aged between 0 and 15 represent around 32.8% of the whole population (see Figures 6 and 7). This high percentage means that there should be significant consideration towards the needs of this category of residents. In particular, numerous studies refer to children and young residents aged between 5 and 15 years as the main beneficiaries of the open neighbourhood spaces - either public or semi-public. (Woolley, 2006). These activities have a major impact on the children during what is one of the most important life periods (Islam et al., 2014). it is a period of time that almost everyone can remember and, it has a significant impact on personality and social skills, such as how individuals communicate with others in the later stages of life (Woolley, 2008). Therefore, it is crucial for the future success of new neighbourhood developments that this research understands the social and health benefits of involving this category in the design of open spaces.

Figure 6: The percentage of the main categories of the Libyan population, (Meters, 2018) accessed 16/01/2018 12:55 pm
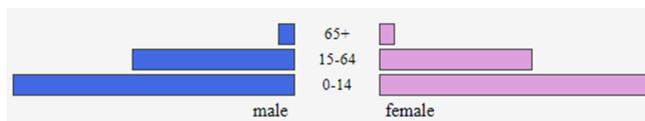

Figure 7. The Libya population pyramid of 2017, (Meters, 2018) accessed 16/01/2018 12:55 pm

According to the literature, there are many essential points to be taken into consideration regarding the healthy environment of the children and the health benefits of applying infrastructure for physical activities in open spaces. Gehl (2011, p. 21) highlights that "people in general inspired to others action, children see other children at play and get the urge to join in, or they get ideas for new games by watching other children or adults". One of the measurements in this research aimed to discover the ease of access to the open spaces around/near the house clusters. Almost 70% of the participants disagree with the statement that "Children have easy access to the public space such as the play area, playground and open green space", which illustrates the weaknesses of the quality of the linkages between the houses and the public spaces. Figures 8 and 9 show how

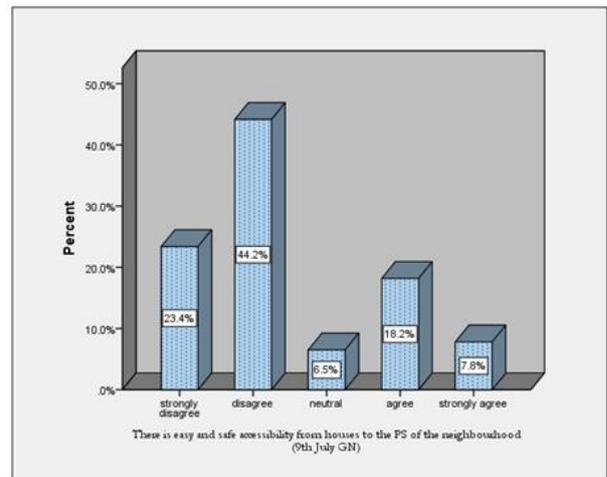the participants responded to this issue in both neighbourhoods.

Figure 8. Responses to the statement 'Residents has easy access and use of POS around their houses', in the GN 9th July
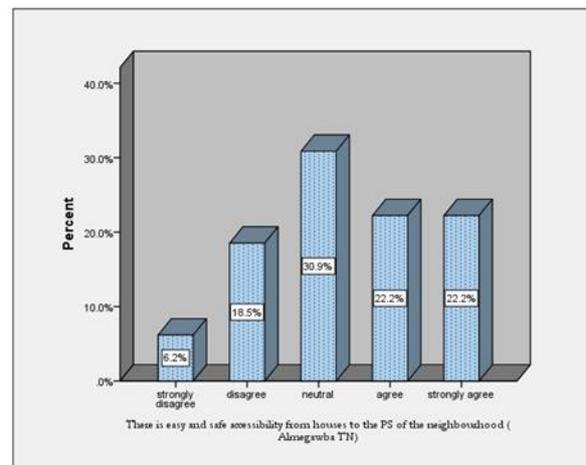

Figure 9. Responses to the statement 'Residents has easy access and use of POS around their houses', in TN Almegawba

The government's priority is to provide houses as an essential need, however, there is a lack of understanding of the importance of the landscaping and provision of facilities for the open public spaces in the neighbourhood. Therefore, the children have no other place to practice their activities and make new friends. They have to use other surrounded space rather than designed public spaces, and these area may not be appropriate for their activities. It also raises serious concerns regarding health and safety issues, (see Figures 10 and 11). It can be seen that children play alongside the main road which could potentially lead to serious injuries from traffic.

Figure 10. Children play football outdoors, picture by the author, location 9th July GN, 15/08/2018

Figure 11. The risk of road accidents for the children who play outside along and/or on the road, GN 9th July, picture by author 20/10/2018

Regarding the age groups in this research, results show that children often use public space as a place to discharge their energy and strike up friendships with other children during the play activities they enjoy in their free time. Therefore, successful open spaces are not simply 'space', they are also attractive to the residents, particularly the children. Findings show that, in terms of social impact, children have a strong impact as they support the social relationship among the adults through the opportunities they present for all categories of the neighbourhood to gather in one place. Here the children form the cohesive element and opportunities for neighbours to meet together are more likely to develop into deeper interaction and very close communication (see Figure 12).
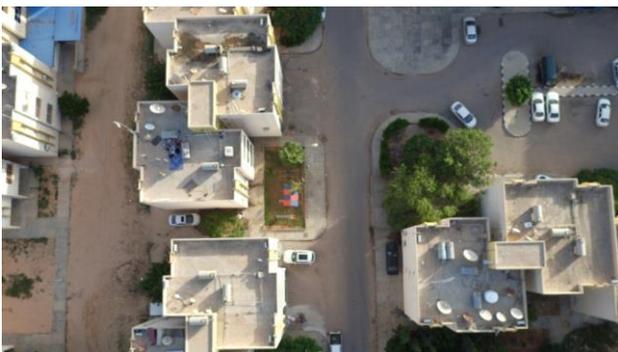

Figure 12. Shows the types of activities that children apply in daily bases activities, pictures by author 20/10/2018 9thJuly GN neighbourhood

The other factor which relates directly to the activities of the children, particularly in the open spaces, is safety. Interview participants pointed out that the greatest concern for them is letting their children play outside their houses as they fear for their safety. As there are limited areas of appropriate places for the children's activities, these need to be secure and safe. For instance, many of the available places are not fenced, and this may present risk for children, particularly the younger ones. Although residents are aware that playing outside and engaging in physical activities is much more beneficial to their children, especially in terms of their health, some participants report that they try to provide toys and activities to keep children engaged indoors because some of these areas are located near roads. This shows the importance of safety of the outdoor play facilities so that children can enjoy them.

To sum up, the city's neighbourhoods are facing a real challenge in terms of supporting children's activities. In this sense, extra care should be taken over this issue when developing the open public space to ensure they are convenient and appropriate to fulfil the children's needs in terms of quality, safety and social aspects.

V. CONCLUSION

This research has pointed out that intangible and physical elements have a major impact on the quality of the public spaces in the neighbourhoods. These elements are, in fact, related to many factors, including the relationship between the residents, social interaction, and cultural aspects. It has revealed that the relationship between the residents depends very much on the length of time of neighbour-ship, the longer the neighbourship has existed, and the stronger the relationship will be. As Nasar and Julian (1995 , p. 180) state, "Sense of community is a key psychological construct that the residents of urban neighbourhoods build over a period of time". Therefore, "The length of residence thus becomes important in fostering a sense of community, in addition to neighbourhood association and mutual cooperation" (Chitrakar, 2016, p. 215). This indicator illustrates why, in the TNs, the relationships between the residents are often much stronger than those in the GNs. The main nourishment for these relationships is social communication, greeting, sitting together, chatting, and sharing activities. In both sites, the results have identified a reasonable range of social interaction between the residents, but improvement is needed in order to create integrated communities, which is one of the aims of this research.

The children of the neighbourhoods are the most active and vital of the resident categories; they have more energy and a wide range of activities to be shared, as Gehl (2013, p. 158) states, "Children's play has always been an integral part of city life". The research has emphasised that children play a fundamental role in improving the social interactions and encouraging the residents to become involved in more social activities. For instance, a participant (K SH) from the 9th July GN pointed out that "we have very good relationship and social interaction with our close neighbours because our

children always play together, this was the first step for us to get in touch, and then over time we become very integrated families". The play areas and sports activities usually bring the parents and other adults together and encourages them to communicate in these places. The research has highlighted that the opportunities for communication and social interaction between the neighbours are much greater between the families whose children meet up and play together frequently. Moreover, the research results show that the TNs are more integrated and have higher community cohesion, this indicator has been explored due to the strong communication and social involvement between the residents of the TNs. On the other hand, similar elements have only been observed in small groups in the GNs, these are built up over time, more through daily interactions than through social communication.

Finally, this research has revealed that, regarding the quality of the existing public spaces, categories of residents, i.e., females, youths, and the elderly, have fewer opportunities to enjoy the outdoor spaces than others. Sufficient provision for these groups is not made in terms of local needs and appropriate spaces to undertake their social activities in the public or semi-public spaces of the neighbourhood. It has been heavily emphasised that public spaces, such as neighbourhood parks, should serve all types of inhabitants. As Rouhi et al. (2016, p. 458) assert, "The best parks are those that pay attention to the social, cultural, psychological needs of different age and sex groups and provide charming and appropriate atmosphere for them". The research has concluded that these categories need more attention in future urban developments, and in new projects, in order to maximise the value, to both the community and the individual, of the public spaces for these particular users. The research admits to several limitations, such as covering only two sites to compare and measure the intangible and tangible elements, which could have been analysed more comprehensively if more sites were covered. Also, additional methods could be applied to investigate the issues in more depth and to gather more specific information regarding the characteristics of the local community. This suggests that further investigation could be beneficial regarding this topic, particularly in the social relationships and traditional elements which are relevant not only to urban redevelopment, but also to the quality of the residents' lives and their levels of social satisfaction.

VI.   LIST OF FIGURES

Figures 1: The Libyan population in 2018 and the increased line of the population each year, (Worldmeters, 2018).

Figure 2-a: Location of Libya in Africa, (Atlas, 2009) accessed 17/03/2019 12:37 pm

Figure 2-b: Location of Libya and the main cities, (Atlas, 2009) accessed 17/03/2019 12:37 pm

Figure 2-c: The location of Misurata city, Libya, (AAAS, 2017), accessed on 25/12/2019, 13:05 pm

Figure 2-d: Location of the case study sites: a): Almegawba TN, b): 9th July GN, c): city centre CC. Source: Google Earth map

Figure 3-a: The map of 9th July GN site in scale 1:5000

Figure 3-b: The map of Almegawba TN site in scale 1: 5000

Figure 4: Responses to the statement ' Sharing activities in the POS promotes the relationship and intimacy among the residents', 9th July GN

Figure 5: Responses to the statement ' Sharing activities in the POS promotes the relationship and intimacy among the residents', Almegawba TN

Figure 6: The percentage of the main categories of the Libyan population, (Meters, 2018) accessed 16/01/2018 12:55 pm

Figure 7: The Libya population pyramid of 2017, (Meters, 2018) accessed 16/01/2018 12:55 pm

Figure 8: Responses to the statement 'Residents has easy access and use of POS around their houses', in the GN 9th July

Figure 9: Responses to the statement 'Residents has easy access and use of POS around their houses', in TN Almegawba

Figure 10: Children play football outdoors, picture by the author, location 9th July GN, 15/08/2018

Figure 11: The risk of road accidents for the children who play outside along and/or on the road, GN 9th July, picture by author 20/10/2018

Figure 12: Shows the types of activities that children apply in daily bases activities, pictures by author 20/10/2018 9th July GN neighbourhood

REFERENCES

1. BEHRAD, B. & BAHRAMI, B. 2015. The Impact of Public Spaces Physical Quality in Residential Complexes on Improving User's Social Interactions; Case Study: Pavan Residential Complex of Sanandaj, Iran.
2. CATTELL, V., DINES, N., GESLER, W. & CURTIS, S. 2008. Mingling, observing, and lingering: Everyday public spaces and their implications for well-being and social relations. Health & place, 14, 544-561.
3. CHITRAKAR, R. M. 2016. Meaning of public space and sense of community: The case of new neighbourhoods in the Kathmandu Valley. International Journal of Architectural Research: ArchNet-IJAR, 10, 213-227.
4. DAS, D. 2008. Urban quality of life: A case study of Guwahati. Social Indicators Research, 88, 297-310.
5. GEHL, J. 2011. Life between buildings: using public space, Island Press.
6. GEHL, J. 2013. Cities for people, Island press.
7. ISLAM, M. Z., MOORE, R. & COSCO, N. 2014. Child-Friendly, Active, Healthy Neighborhoods Physical Characteristics and Children's Time Outdoors. Environment and Behavior, 0013916514554694.
8. ISRAEL, G. D. 1992. Sampling the evidence of extension program impact, University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS.
9. IVESON, K. 2011. Publics and the City, John Wiley & Sons.
10. JALALADDINI, S. & OKTAY, D. 2012. Urban public spaces and vitality: a socio-spatial analysis in the streets of Cypriot towns. Procedia-Social and Behavioral Sciences, 35, 664-674.
11. KIM, J. & KAPLAN, R. 2004. Physical and psychological factors in sense of community new urbanist Kentlands and nearby Orchard Village. Environment and behavior, 36, 313-340.

12. KITCHENHAM, B. & PFLEEGER, S. L. 2002. Principles of survey research: part 5: populations and samples. ACM SIGSOFT Software Engineering Notes, 27, 17-20.

13. KOTRLIK, J. & HIGGINS, C. 2001. Organizational research: Determining appropriate sample size in survey research appropriate sample size in survey research. Information technology, learning, and performance journal, 19, 43.

14. MADANIPOUR, A. 2013. Whose public space?: international case studies in urban design and development, Routledge.

15. MOHAMAD, D. 2005. The neighbours and neighbour-ship. The national life, 2.

16. NASAR, J. L. & JULIAN, D. A. 1995. The psychological sense of community in the neighborhood. Journal of the American Planning Association, 61, 178-184.

17. OPPENHEIM, A. N. 2000. Questionnaire design, interviewing and attitude measurement, Bloomsbury Publishing.

18. ROUHI, M., MONFARED, M. R. & FORSAT, M. 2016. Measuring Public Satisfaction on Urban Parks (A Case Study: Sari City). Journal of History Culture and Art Research, 5, 457-473.

19. SALHIN, S. M. 2011. A critical evaluation of Libya's urban spatial system between 1970 and 2006.

20. WATSON, G. B. & KESSLER, L. 2013. Small Changes – Big Gains: Transforming the Public and Communal Open Spaces in Rundown Neighbourhoods. Journal of Urban Design, 18, 565-582.

21. WOODS, M., PAULUS, T., ATKINS, D. P. & MACKLIN, R. 2015. Advancing qualitative research using qualitative data analysis software (QDAS)? Reviewing potential versus practice in published studies using ATLAS. ti and NVivo, 1994–2013. Social Science Computer Review, 0894439315596311.

22. WOOLLEY, H. 2006. Freedom of the city: Contemporary issues and policy influences on children and young people's use of public open space in England. Children's Geographies, 4, 45-59.

23. WOOLLEY, H. 2008. Watch this space! Designing for children's play in public open spaces. Geography Compass, 2, 495-512.

24. ZHANG, C. & LU, B. 2016. Residential satisfaction in traditional and redeveloped inner city neighborhood: A tale of two neighborhoods in Beijing. Travel Behaviour and Society, 5, 23-36.