



Users' perceptions about planning and design of public open spaces: a case study of Muscat

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Abstract Public open spaces have played a significant role in the development of society and cities. There are presently increasing concerns globally regarding the essential value of those spaces. The understanding of successful public open spaces as the most liveable and well-used by public has grown. Although there already exists much research in this area, enough emphasis has not been placed on such spaces in Middle-Eastern cities. This study brings fresh evidence from Muscat in comparison with international knowledge and contributes to planning and urban design theories for other Middle-Eastern countries. The emergence of what is known as the modern renaissance era since the 1970s has changed Muscat dramatically in very short period of time. Users' perceptions have also changed, meaning that the demand for good quality public open spaces is growing. In this regard planning and urban design must have a deeper understanding of users' needs; especially when intending to create a successful public open space. This paper examines the effectiveness of urban design and planning practice in providing liveable public open space in Muscat by investigating users' perceptions through four detailed case studies of selected squares and plazas. In order to explore users' perceptions, 120 face-to-face questionnaires were conducted in the four case studies. Structured interviews were conducted with community representatives to find out constraints that hold potential users from using the spaces. Data shows that spaces in Muscat require extra consideration of users' needs in the planning and design system to deliver spaces that allow the people in Muscat to more effectively engage with their environment.

Fig. 1 Map of Sultanate of Oman and case studies locations



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Introduction

Open space has commonly been classified as outdoor areas with multifarious, non-productive use. "Public open place" is defined in this research as any designed outdoor area, to which the public have access by right. The importance of open spaces has grown substantially as more and more public open spaces have been rendered liveable and become well-used by the public (Francis, 2003). Social researchers and designers such as Whyte (1980, 1988, 1990), Marcus (1970; and Wischemann 1987; and Francis 1998; and Barnes 1999), Lynch (1972, 1981), Gehl (1987, 1996), Mozingo (1989), Lofland (1998) and others have in their writings stressed the considerable importance of thriving space usage, in the consideration of good public place (Francis, 2003). Recently, there have been considerable rising concerns regarding the significant value of public space. The provision and the quality of public open space has climbed to the top of political and policy agendas in both developed countries (CABE Space, 2004: cited in Carmona, 2010) and some so-called developing countries (Zetter & Butina-Watson, 2006: cited in Carmona, 2010). This increasing interest is a result of growing evidence of the importance of public spaces with regard to the improvement of economic, social and environmental qualities (Woolley et al., nd: cited in Carmona, 2010).

Lifestyle, the standard of life, working life and economic contribution, in many ways, changed considerably in the last century (Gehl, 2007). As social life changed, open spaces need therefore to provide higher quality to attract the public, but this is not being met by the urban planning authorities. There is a clear shift in the public's interest in using public spaces from being work-oriented to leisure and enjoyment related (Gehl, 2007). Recently people have required more attractive living environments with a choice of activities to fulfil their free time. Several surveys illustrate a considerable growth in the use of public spaces in many cities globally. According to Gehl, both in the past and more recently meeting other people is an important function of urban space, however, now there is a new expression which Gehl has called the 'Cappuccino Culture', as a rationale for many people to remain longer in public spaces (2007). Public space quality is strongly connected with the quality of public transport and promoting healthy patterns of walking and cycling, as of daily activities (Gehl, 2010). However, this healthy awareness of lifestyle is higher with educated people (Thrane, 2006).

There is a new global trend in planning procedures which provides increased integration and a holistic institutional framework which means a shift towards integrated planning (Curry J. et al, 2010). Recently there has been great concern for the changes in the nature of governance and the extent to which planning systems can cope with current worldwide challenges, such as sustainability and urbanization (Hajer & Wagehaar, 2003; Albrechts, 2006; Vigar, 2009: cited in Curry J. et al, 2010). Thus, both urban design and planning practice are playing a significant role in providing more liveable public open space which entices and encourages the public to choose to spend more of their spare time in these spaces (Gehl, 2007). This research however focuses solely on two types of urban open spaces, these being: squares and plazas. It investigates the livability of squares and plazas in Muscat, the capital city of Oman, from users and community representatives.

The understanding of public open spaces has been transformed in the Middle-East region over the years in terms of design concept and usage. The Western civilization of the Middle-Eastern region was a turning point in the region's history toward western hegemony. Under the flag of modernity public open spaces in the Middle East appear more as a product of an urban design process controlled by the economy and Western concepts rather than a mixture of historical and modern achievement (Aga Khan Award for Architectural, seminar proceedings 1978-1986, cited in Germeraad 1990). Germeraad (1990) concluded that urban design in the Middle-East tended to focus on visual appearance, ignoring the natural environment features, and placed emphasis on the adoption of Western concepts rather than the local users' needs, social and religion values. The introduction of square and plaza concepts as part of modernity neither represents Western tradition nor do they develop Middle-Eastern traditional concepts. Though identified with

different names there is no clear distinguishing factor between square and plaza as a concept or term due to the lack of specific meaning.

Oman occupies the extreme east and the south-east of the Arabian Peninsula in the Middle-East which is part of what is known as the Arab Muslim region (see Fig. 1) (Peppelenbosch and Teune, 1981, cited in Germeraad, 1990). The climate in Muscat could be classified as a subtropical dry, hot desert climate, humid with low annual rainfall (Federal Research Division 2010). The research follows the official classification of the Omani society according to their nationality as Omani and expatriate. The big inflow of expatriates in the last 40 years, however, made the social fabric in Oman even more complex, especially in Muscat. The Muscat governorate has the highest number residents in Oman with 28% of the total population; 52.46% of them are Omani and 47.54% are expatriate. The Omani society is very youthful with the age structure dominated by young people. Nearly one third (27.8%) of the population are below the age of 15 years. The adult age group, which is 15-64 years, is found as 68.6% and elderly people of age 65 years and over are only 2.7% of the population.

Research methods

A questionnaire was designed to explore the users' perception of the case study squares and plazas. Thirty questionnaires were completed by the space users in each location via face-to-face interview. The survey was conducted in the summer which is considered the lowest tourism season in Muscat. The survey was conducted at different times in morning and evening. In order to ensure a random sample participants were selected based on a rhythm of every other fifth person entering the space. In order to find out the view from other potential users who do not use the spaces, structured interviews were conducted with community representatives. Public open space is a planning and design product. This paper is part of wider research which investigates the process of planning and design in producing liveable spaces and here it only presents the product's quality from the users' perception.

The paper examined two squares and plazas which were provided recently after the 70s. The squares were selected because they are the only exist examples in the city. Palace Square is the most recent case and was built in front of the Alalm Palace to be used for royal reception ceremonies. It is also considered a tourist spot. Municipality Square was built as a land mark on the boulevard of the commercial district area. It also showcases the modernization of Muscat. Whereas the Plazas were chosen as the most appropriate in representing the plaza's concept and features in terms of design and usage. Ministries Plaza was built as landscape frontage for the ministries buildings. Muttrah Plaza is also landscape on the Muttrah corniche waterfront next to the historic market and international marina of the city. This makes it part of the tourist destinations of the city. Data from the survey was collected on three main areas; demography of users, their visit and their frequency activities evaluation of the design and planning of the space. Limitation in communication, however, made the author skip many of the chosen participants according to the selection rhythm because many of the expatriates could barely speak either Arabic or English. The data collected also gave an insight into the reasons why these spaces are not well used.

Findings from the survey of open spaces users

Users characterisation and open spaces usage

Due to the limitation explained above the number of Omanis who participated in the survey was 30% higher than expatriates. However, observation of this spaces which was another data technique used in wider research showed that the number was lower. All the findings that follow are based on this. In addition, this does not reflect the demography of Muscat, which has a larger expatriate component. The Palace Square is the only space located in Wilayat Muscat, the state where Omanis are double the number of expatriates and the data shows it has the highest Omani users. Users were mostly with or below high school qualification followed by university

graduates. The next three cases are in Wilayat Muttrah and Bawshar where expatriates are almost double the number of Omanis in terms of place of residence, but field data shows more Omani participants in the two Plazas partly due to communication constraints which led to same degree of exclusion of non-Omanis from the sample despite the effect to randomise this. The second largest group of users were Indian in all cases. There is diversity in the balance of users in Municipality Square. Despite the square's parking space being busy in mornings and dominated by Omanis, barely a few of them entered the square. On the contrary, expatriates were using it more than the Omanis. Most of the interviewed users were educated to below high school degree probably because they were mostly from Asian expatriates' labour groups. In Ministries Plaza, however, the non-Omani users were less than one third of the Omanis. There was a variety of expatriate users from India, Philippines, Egypt and Sudan. It is more used by university graduates. In Muttrah Plaza Omanis were two thirds of the participants. It also attracted a wide diversity of other nationalities from India, Emirates, Iraqi, Egypt, Sudan and Iran. It has the most balanced diversity in users' educational background.

Palace Square has a good distribution of all age groups, with adult age dominating. Municipality Square has less diversity of age compared to the Palace Square and is dominated by youth with age below 20. Field data shows that the square is not quite preferred by the middle-age group. Whereas in Ministries Plaza and Muttrah Plaza users were mostly from adult age and elderly groups age 20 and over.

The survey shows that the case studies are used by various income groups. 41.67% of case studies users were low income group, 35% were from middle income group and 13.33% were from high income groups. The most frequent users for the Palace Square were mostly from lower and middle incomes. This is probably because it is surrounded by residential neighbourhoods which made it accessible for the local community. The distribution of income groups within each nationality group (Omani and expatriate) was similar to the proportions for the total users, which is not the case in the other three spaces.

In Municipality Square users from all income groups were using it on daily and weekly bases. Still there is a balance in users from non-Omani origin whatever their income. However, there is a drop in the Omani users in the middle income group, and they are totally absent in the high income group. This clearly demonstrates that the Square is preferred by the expatriates and almost unused by the Omanis of middle and higher incomes. Using such places is a relatively new concept for Omanis compared to the expatriates. The drop in the standard of maintenance and cleanliness in this square might be the reason behind its abandoning by Omanis with better income who normally have better choices

The Ministries Plaza, however, had a different spread of users by income, where the middle-income users were the majority followed by high and low income respectively. Its location with no other uses or neighbourhoods in its surroundings restricts use by lower income users. Omani low-income users were fewer compared to expatriates users of the same group. This plaza needs travel and Omanis rely more than expatriates on cars, especially as families, which makes it costly, whereas the number of expatriate users in the same group was slightly higher probably because they are more experienced in using such spaces and more comfortable in using public transport.

Muttrah Plaza has users mainly from low, middle and high-income respectively. It has less income diversity in frequent users. The expatriate users were almost following the general pattern of income for the total with a drop in the lower income. This reflects the limitation in accessing interviewees during the field research. However, there is no presence of the Omani users with high income, apparently because people with high-income would probably require certain standards of space quality and activities to motivate them to use the space since they have a wider range of choices to select from as reported from the survey responses.

The numbers of male users of the case study spaces was more than 63.34% higher than females. There is a big gap between the participants from the two genders. In the best situation

females were just above one quarter of the total participants. Female users were recorded as 26.67% in Palace Square followed by Municipality Square and Ministries Square with 16.67% each and Muttrah Plaza with 13.33%. Palace Square users were mostly with or below high school qualification followed by university graduates. Users in Municipality square have similar distribution of educational level with further expansion in the below high school qualification group. Ministries Plaza is more used by university graduates. Finally, Muttrah Plaza has the most balanced diversity in users' educational background.

Contribution to the city

Responses shows strong positive relationships were shown between designs of the spaces, making a good impression of the space and contribution to the urban character of Muscat as a city. The majority of the participants thought that the case studies do have a distinctive local character and contribute to pride in the city (see Fig. 2).

In terms of economic contribution (Fig. 3), in Palace Square only 23.33% thought it contributes. Whereas in Municipality Square only 30% of participants thought it did not contribute. This square has better diversity in the surroundings but the economic environment is not properly addressed. Nearly 60% of participants in the Ministries Plaza thought the plaza has no effect on the surrounding commercial activities. Up to 43.33% of participants in Muttrah plaza had the most positive responses, with half of the participants stating it is contributing. Participants thought that visitor facilities are missing in these spaces, which not helping in attracting businesses.

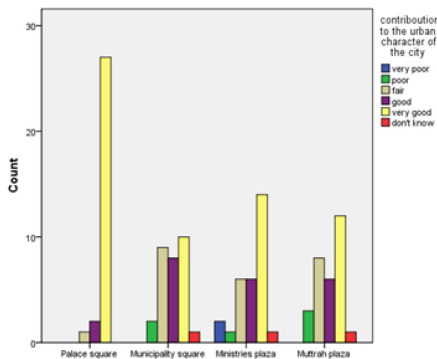


Fig. 2: Contribution to the urban character of the city

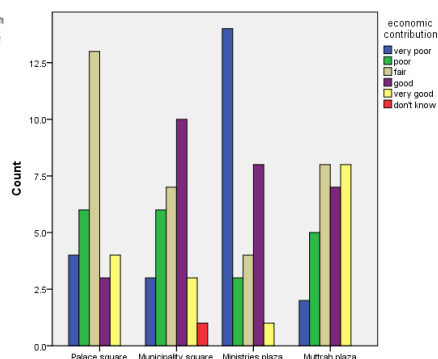


Fig. 3: Economic contribution city.

Safety and maintenance

Participants were pleased with safety as illustrated in (Fig. 4). Municipality Square has the lowest perception of safety rate. In this space, there were concerns about some perceived anti-social behaviour which includes playing loud music, vandalism, noise nuisance, litter, fly tipping and dancing. Moreover, the field data shows that road risks raised the same concerns in all spaces. In this respect road risk is the only recorded issue for all cases which could be addressed by design.

As in (Fig. 5) the majority of users of Palace Square agreed it is kept up to high standards. The participants in Municipality Square were the least satisfied by the standard of maintenance and cleanliness. They criticised the bad condition of fountains, lighting, and soft and hard landscape. Additionally, cleanliness was not up to standard in their opinion. In the case of Ministries Plaza, users were mostly satisfied but a few concerns were mentioned regarding a broken lamppost. Good and very good were the majority answers from participants in Muttrah

Plaza. They, however, stated the need for extra attention to space hygiene and fountain maintenance.

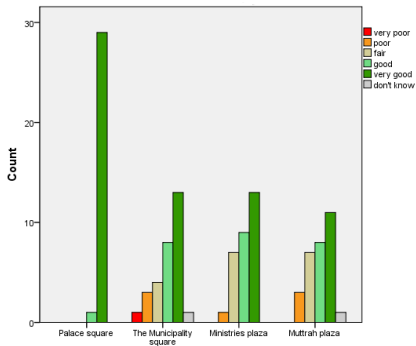


Fig. 4: Safety

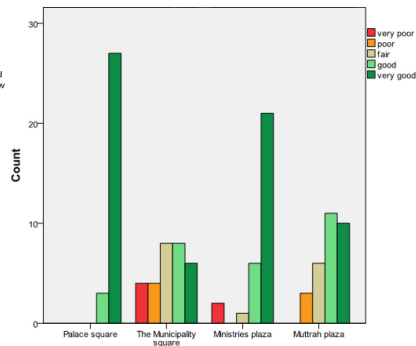


Fig. 5: Standard of cleanliness and maintenance

Users' activities

Although ranking of preferred activities vary between the places, they were all more or less oriented towards exercising, sport, having a quiet time and enjoying the place. The most frequent responses in Palace Square were ‘to play sport or game’, ‘enjoy the beauty of the place’, ‘for peace and quiet’, ‘to keep fit’ and ‘take a shortcut’. Despite it being summer, which is not a tourist season in Muscat, “tourism” and “taking photo of the palace” were mentioned. Participants who were not from the local authority area were visiting to enjoy the place as a Muscat landmark and to take photos. Users from the surrounding neighbourhood were more enjoying walking in the space to keep fit and using it as a shortcut to the mosque. The young users from the neighbourhood were enjoying cycling and roller skating despite the restrictions on such activities due to royal security of the palace.

In Municipality Square common responses were ‘to play sport or game’, ‘meeting someone’, ‘for peace and quiet’ and ‘to eat and drink’. Users in this square were mainly from a young age group. The spread of preferred activities was dominated by youth interest such as enjoying meeting their friends, street dancing and eating or drinking. There were as well families who enjoyed meeting other families, having peace and quiet while their kids scoot and cycle around and could as well eat and drink. Adult individuals mainly from expatriate groups were enjoying meeting each other, peace and quiet and also eating or drinking.

In Ministries Plaza, the most frequent activities were similar but in a different sequence of ‘to keep fit’, ‘for peace and quiet’, ‘to play sport or game’, ‘enjoy the beauty of the place’ and ‘get fresh air’. Individual users preferred walking and jogging around the plaza. Middle-aged users fancied playing football and cricket. As mentioned earlier this plaza is preferred by highly educated people which explain fitness activities, as Thrane (2006) states that well educated people tend to practise healthier life styles. Despite the plaza not being provided with any cafe or stall, not even within a reasonable walking distance, ‘To eat/ drink’ was mentioned 9 times, even more than in the other locations. It is also the preferred site for children and family outings, which was mentioned 8 times. Families use it as a mini-picnic spot where the younger can ride bicycles or roller skate, adults walk around enjoying peace and quiet and have home-packed or takeaway meals.

Muttrah Plaza’s location by the sea has great impact on the activities users most like. ‘Enjoy the beauty of the place’, ‘for peace and quiet’, ‘get some fresh air’, ‘children and family outing’ and ‘meeting someone’ were the most commonly given responses. This plaza comes second in stating ‘children and family outing’ as an activity. It is also well used by families for mini-picnics.

Some Muttrah market shoppers use the plaza parking, and then use the plaza as a resting point at the end of their shopping journey.

User requirements

Users did not quite feel that those spaces were provided for them. The survey showed that 16.7% of participants strongly disagreed and just 2.5% disagreed that the spaces were mainly provided as a display of power to satisfy the royal court. 20% thought that the authorities have achieved balance between satisfying the royal court and pleasing the public. 22.5% of respondents indicated a strong belief and 20.8% agreed that authorities provided these spaces mainly as a display of power to satisfy either the officials or the royal court. However, this is a critical question, which made 17.5% of participants feel unconfident to answer. One third of users in the case study spaces believe these are not user-oriented spaces. Up to 93.97% of the participants had never been consulted on the way public open spaces are provided or asked if they would be involved; whereas just 8.55% of them stated they had no intention of being part and having a say in planning their city. The majority of users in all cases have never been consulted on planning their environment. They mostly, however, showed willingness in having their say about planning their city. To focus on users' needs the participants were asked what would encourage them to use the square more often or to stay longer. Users thought providing visitor facilities based on basic services and leisure activities makes a substantial contribution to obtaining attractive well used spaces. Users complain about the lack of visitor facilities such as toilets, drinking water fountains, cafés and shops. Toilets, with a stress on their cleanliness, however, were ranked as the first missing facility in all cases. "More trees" and "shade" were frequently mentioned as desirable in responses.

From interviews with community representatives, they collectively agreed that public open spaces are not well used in Muscat. They see them as being used more by the low income expatriates than by Omanis. Today people in Muscat go to indoor shopping malls not only for shopping but also as an outing. For community representative interviewees the main reason for the lack of usage of the case study spaces is that they do not provide for users' needs. They have no function in order to interest people to use them. They believed that quality of spaces has to be improved to expand their user groups. This finding corresponds with Gehl's (2007) ideas. Good quality visitor facilities are very important. Interviewees claim that using such spaces is a new concept in Muscat. Therefore, events have to be organised by the government in order to build up community experience of using them more frequently.

Palace Square was considered by community representative interviewees as not approachable due to lack of facilities and activities that would encourage users. Moreover, it is located in Muscat state away from the all new developments where the majority of the residents live. Municipality Square is certainly not a place for people with better incomes where they get an opportunity to spend their spare time in better quality built environment. The two existing cafes and restaurant are very low quality. Although the Ministries Plaza is not designed to be used for exercise, most visitors go for keeping fit activities. However, interviewees found Muttrah Plaza the most used among the case studies due to its seaside location. Community representatives agreed that public involvement in the planning process is the first step in providing liveable public open spaces.

Discussion

Designs of all case studies appeared to be beautiful but seem to have low consideration of economics, climate and users' facilities, which supports Germeraad (1990) evaluation of Middle-Eastern public spaces. Most of users' activities in the spaces have not necessarily been considered in their designs. Participants activities were mostly oriented towards keeping fit, except in Muttrah Plaza, where enjoying the place leads the list. Female users were far less prevalent than

male proportion due to domestic commitments and cultural restrictions. Additionally, the needs, appropriation opportunities, and options for action vary between the two genders in the society.

Palace Square is a political and tourist location, which explains the high quality of design, maintenance and safety. The good quality encourages users from different groups of the community to use it. The survey was not conducted in the tourist season; therefore, it missed the tourists. The square was, however, provided as royal reception venue where users were not the first priority. This results in weakness in meeting users' needs.

Municipality Square was designed with multi-function in a commercial district. Nevertheless, its low maintenance has gradually led to a decrease in space quality and in its abandonment by the community. The majority of users were either teenagers or expatriate labourers who are less educated and low income.

Ministries Plaza is located near most of ministries buildings and has no residential neighbourhoods surrounding. Compared to the other cases the nearest neighbourhoods are considered to be relatively higher income. Although, users found the plaza was less impress in design compared to Municipality Square, the level of maintenance did appear to help in encouraging visitors from higher income and higher qualification to use for fitness activity. However, missing users' priorities resulted in lack of services and excitement.

Muttrah Plaza is near to a diverse urban fabric and historic location. It scored the lowest in design compared to the other cases. However, the nature of the surrounding environment area acts as a fundamental attraction of this plaza. Maintenance also helps in attracting different users. It is also launching user facilities which promote liveable activities.

This discussion shows that hot weather is identified by some as a reason for low usage of these spaces, there are factors related to the planning and design process which greatly contribute to this, reflecting the argument cited by Curry J. et al, (2010). Indeed to the users the designs of all case studies were impressive but not fit to the climate. As square and plazas are new concepts people, were not given different reasons to use the space. All case studies were mainly designed as show case projects and they are not user oriented spaces, which echoes the work of Gehl (2007). Users stated they require spaces where they would choose to spend their spare time. Lack of visitor facilities is a major reason behind some people abandoning those spaces. People not only require good design but they also need good quality of amenities and leisure services such as toilets, café, restaurants, sports recreational and shops. The survey showed that respondents had not been consulted in the planning and design.

Conclusions

This paper is a segment of wider research that is concerned with evaluating the planning and urban design process of public open spaces in Oman. This piece of work traced the user perception of public open spaces in Muscat as part of assessing the provision process. Data from users' questionnaire explored the users' nature, evaluation of the space, activities, and requirements. Furthermore, data from community representatives' interviews showed the views of those who are not using the spaces. From the discussion, public open spaces in Muscat required deeper thinking of users' needs from design and planning levels. Creating liveable spaces requires providing spaces with leisure and commercial activities. It is vital to ensure that community requirements and values are adequately addressed to create spaces which are users oriented. The design aspects to some extent were provided successfully in all case studies, but the bigger picture of planning missing of.

References

- Carmona, M. (2010). Contemporary Public Space: Critique and Classification. Part One: Critique. *Journal of Urban Design*, 15(1) 123-148.
- Curry, J., Illsley, B., Jackson, T., & Rapaport, E. (2010). Community Innovation in the Soft Spaces of Planning. *International Planning Studies*. 15(4) 303-319.
- Federal Research Division (2010). A Country Study: Oman. Country Studies. Retrieved July 27, 2011 from The Library of Congress <http://lcweb2.loc.gov/frd/cs/omtoc.html>
- Francis, M. (2003). *Land and Community Design Case Study Series: Urban Open Space, Designing for User Needs*, Washington: Island Press.
- Gehl, J. (1987). *Life Between Buildings*, New York: Van Nostrand Reinhold.
- Gehl, J. (1996). *Public Spaces - Public life*: Copenhagen 1996. Copenhagen: Danish Architectural Press etc.
- Gehl, J. (2007). Public Spaces for a Changing Public Life. Thompson, C. W. And Travlou, P. (edi.) (2007) *Open Space: People Space*. Oxon: Taylor & Francis.
- Gehl, J. (2010). *Cities for People*, London: Island press.
- Germeraad, P. W. (1990). *Open Spaces in Human Settlements: The Lesson from the Islamic Tradition : Contemporary Design Considerations for Open Spaces in Arab-Muslim Human Settlements in the Middle East*. Wageningen: Architectural University Wageningen Netherland.
- Lofland, L. (1998). *The Public Realm : Exploring the City's Quintessential Social Territory*. Hawthorne, N.Y. : Aldine de Gruyter.
- Lynch, K. (1972). *What Time is this Place?*. Cambridge: MIT Press.
- Lynch, K. (1981). *A Theory of Good City Form*. Cambridge: MIT Press.
- Marcus, C. (1970). *The Adventure Playground : Creative Play in an Urban Setting and a Potential Focus for Community Involvement*, Berkeley : The University of California, Institute of Urban & Regional Development.
- Marcus, C., and Wischemann, T. (1987)., Outdoor Spaces for Living and Learning, *Landscape Architecture*, 78: 54-6.
- Marcus, C. and Francis, C. (1998). *People Places: Design Guidelines for Urban Open Space*, Part 4, second edition. New York: John Wiley and Sons Inc.
- Marcus, C. and Barnes M., (1999). *Healing Gardens: Therapeutic Benefits and Design Recommendations*, New York: Wiley.
- Marshall, S. (2008). 'Them and Us'—Thinking of the User. *Urban Design and Planning*, 161 (DP2), 45-45.
- Miller, K. F. (2007). *Designs on the Public: The Private Lives of New York's Public Spaces*, Minneapolis: University Of Minnesota Press.
- Mozingo, Louise. (1989). Women and Downtown Open Spaces. *Places*, 6(1), 38.
- Thrane, C. (2006). Explaining Educational-Related Inequalities in Health: Mediation and Moderator Models. *Social Science & Medicine*. 62(2), 467-78.
- Whyte, W. (1980). *The social life of small urban spaces*, Washington: Conservation Foundation, 1980.
- Whyte, W. (1988). *The social life of small urban spaces*, Film produced by The Municipality Art Society of New York.

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Whyte, W. (1990). *The social life of small urban spaces*. Film produced by The Municipality Art Society of New York.