

Toward Sustainability of Temporary Uses in Public Spaces

A Case Study Muscat, Sultanate of Oman

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Abstract

With the recently increasing emphasis on sustainable planning and the connection between public values and environmental, social, and economic aspects, there is a need to study temporary uses in public spaces. They are significant ways for achieving sustainability in urban development, especially when users meet their needs by interacting with public spaces in ways that differ from their original uses under changeable circumstances. Cultural heritage and ecological diversity constitute the main catalysts of modern development in Oman. Local authorities of Muscat, Oman's capital, examine the urban potential and future development through integrating temporary uses to promote public spaces during numerous festivals. This paper analyzes the environmental, economic, social, legal, and sustainable aspects of temporary uses. Furthermore, two public festivals, held in Muscat, were analyzed as varieties of temporary uses were introduced within public spaces. The analysis of the two cases has been done based on the different aspects of temporary uses. In total, 83 semi-structured interviews were conducted with users and stakeholders such as architects, developers, and planners, during group workshops. A questionnaire was administered to the workshop participants to measure their opinions regarding the temporary uses in public spaces. This study establishes the significance of following the different aspects of temporary uses that can lead to the success of these uses. Also, it explores the major role of temporary uses in the urban development of cities as it works like living labs for experimenting before long-term investments to achieve social needs with saving the environment via appropriate investments under an adequate legal framework.

Keywords

Temporary Uses, Sustainability, Public Space, Muscat, Sultanate of Oman

1. Introduction

Temporary buildings are considered a significant branch of architecture; however, it does not receive the appropriate attention for various reasons. One of them is related to the traditional image of temporary building designs as simple tents and pavilions, which are not creative or achieve social needs. The construction of temporary buildings is an essential part of architecture practice throughout history. Many architects could not realize that temporary architecture is an ancient tradition due to the rapid disappearance of its role over time.

Temporary buildings trace back to the ancient world and the Middle Ages where theaters, arenas, and events spring up in most of the public spaces now existing as archeological remains. This type of architecture is mostly oriented to a specific type of event that received increasing popularity from the 15th to 17th centuries, especially temporary triumphal arches for greeting royal processions. Some of these temporary buildings were built of canvas spanned across wooden frames, while others were constructed

of clay, plaster, paper, or even confectionery. In many cases, these buildings look like 'real' architecture and they are often designed by artists like Peter Paul Rubens (1634/35) for greeting, Cardinal-Infante Ferdinand of Austria (Baker, 2014).

Architectural theories are also concerned with temporary buildings from early, as it mainly focuses on how the building is convenient to the context, the season, the type of celebration, and the position of the person who is glorified. The imagery using emblems, inscriptions, allegories, etc. is often designed and adapted to the person who will be honored and the celebration where none of these designs could be ever reused. In these royal special celebrations, the whole streets and squares were decorated with temporary designs. By the end of the 18th century, one of the Enlightenment results was the end of these luxurious celebrations. In 1763, Friedrich II Von Preußen marched in Berlin, and he considered the gate specially built to honor him as an unnecessary expense (Baker, 2014).

This type of building was rediscovered after 100 years, as temporary buildings increasingly became popular by the second half of the 19th century. This reality explains the beginning of constructing temporary buildings for the Olympics and the era of World Fairs. These buildings were built to host a large number of audiences rather than focus on one person. There are many examples of mythical temporary buildings include London's Crystal Palace, the Barcelona Pavilion by Mies van der Rohe 1929, and Le Corbusier's Phillip's Pavilion in Bruxelles 1958, which is one of few examples where music is represented in architecture (Baker, 2014). In the 20th century, there was an increase in academic researches on temporary theaters, pavilions, and exhibition buildings. From the 1950s to the 1970s, numerous temporary uses were constructed of extremely strong materials; especially concrete (Baker, 2014).

With the modern rapid development, it becomes more complicated to expect the future of urban development in a changing world. For many years, urban development focused on economic and social growth more than the quality of urban spaces. Recently, one of the popular approaches for urban development is to make cities containing more livable places that meet sustainability requirements; consequently, urban planners search for alternative ways of development. Temporary uses in public spaces constitute one of the best ways to carry out experiments with alternative urban plans, where creativity and innovation lead to new ideas for urban development especially with the current situation of social life during the spread of COVID-19. Therefore, this study discusses the main aspects of temporary uses, which help in promoting sustainable temporary uses in public spaces, for experimentation before long-term investments under changeable circumstances.

2. Methodology

Urban uses are considered temporary by nature (Kohoutek & Kamleithner, 2006). Buildings rise and collapse, inhabitants come and leave, streets are redirected, and trees are florid and losing their leaves. Activity or use is temporary when proved by disappearing (Bishop & Williams, 2012). The definition of the temporary does not base on the kind of use, the scale of activity, the method of paying rent, the official of use, or the duration -the longevity- of the temporary use, but on the intent of the planner, the developer, or the user that this use will be temporary. (Bishop & Williams, 2012). As a result, anything is considered temporary provided it is planned to change.

Temporary uses always exist in cities however, this type of use is not recently exploited to invest in urban development, and it is not a part of urban planning development (Stevens, 2018). Since the early beginning of the 2000s, the studies started a new field for investigating urban planning when they defined the 'temporary use' as a secondary economic activity. It is temporarily established to check the potential for public spaces that bring new jobs, social and economic activities, and investments for the community. Four main points are presented in these studies focusing on temporary use in urban development. Firstly, temporary use can be considered as an important economic strategy, which helps in the long-term economic and physical development. Secondly, temporary use can have a significant impact on the social

and cultural aspects of cities. As they often establish new social and cultural practices, they are integrated into everyday life and popular culture. Thirdly, innovation in temporary uses can provide sustainable long-term effects. Fourthly, temporary use can be considered an important resource for urban development, which offers many solutions when classical urban planning ways become inappropriate.

Temporary uses are presented to combine two main schedules: urban planners' goals for urban development and participants' needs for alternatively innovative activities in a world controlled by gains. Temporary users of public spaces are celebrated as pioneers who lead the renegotiate operation of urban development strategies and rules. Besides, the exploration of planning processes leads to a variety of inputs and visions (SenStadt, 2007). In this paper, temporary uses refer to temporary acts happening when people use public spaces for collective or individual activities that differ from the original uses for which those spaces are designed.

This study discusses the main aspects of temporary uses that can be environmental, economic, social, legal, and sustainable aspects, which help in promoting sustainable temporary uses in public spaces. This research follows certain activities like identification, analysis, and comparison between two remarkable case studies for temporary uses in Oman that seek to achieve success through temporary uses' aspects. Semi-structured interviews were conducted with users and stakeholders such as architects, developers, and planners during group workshops to explore their opinions, beliefs, and assumptions regarding the research topic. A questionnaire was administered to the workshop participants to measure their opinions regarding the temporary uses in Omani public spaces. To find out what is required for establishing sustainable temporary uses respect the environment and achieve social needs via appropriate investments under an adequate legal framework. Further studies and assessments for the implementation of temporary uses in public spaces under the current socio-economic circumstances regarding the spread of COVID-19 are in progress.

3. Temporary Uses

Temporary uses are often understood as a highly different set of activities and practices (Bishop & Williams, 2012). Generally, they were not considered part of the process of urban development (Catalysts, 2003). When an area becomes unoccupied, it is supposed to be used or re-planned. Temporary use is a multidimensional phenomenon taking place in public spaces; it depends on the re-emerging concept (Lara-Hernandez, et al., 2019). For many times, temporary uses are related to the crisis, mess, and lack of vision. However, there are successful, innovative, and inclusive examples for temporary uses, and they prove that these uses have become a part of contemporary urban development. Temporary use does not exist by accident, but it bases on many rules and factors mostly designed according to certain visions for a specific purpose. Temporary use has some definitions such as it is limited in time, while it is planned to achieve certain aims for specific goals (Pogoreutz, 2006). Temporary use is planned to express certain events, which will or will not be repeated (Mayo, 2009). Thus, it is an intended case limited in time (Bishop & Williams, 2012).

Temporary use is a combination of complex imaginary; it depends on contrasting positions and practices. This diversity is the main element of its attraction. Remarkable differences of temporary uses attract spatial participants' energies and help in the experimentation of new ideas for development (Ferreri, 2015). Temporary use has become a magical expression for creative minds who seek to create activities that reflect and support their visions of the future. According to urban planners, it provides a good chance for urban development (Urban Catalyst & Overmeyer, 2007). As a result, this study discusses the environmental, economic, social, legal, and sustainable aspects of temporary uses that can help in achieving sustainability of temporary uses in public spaces.

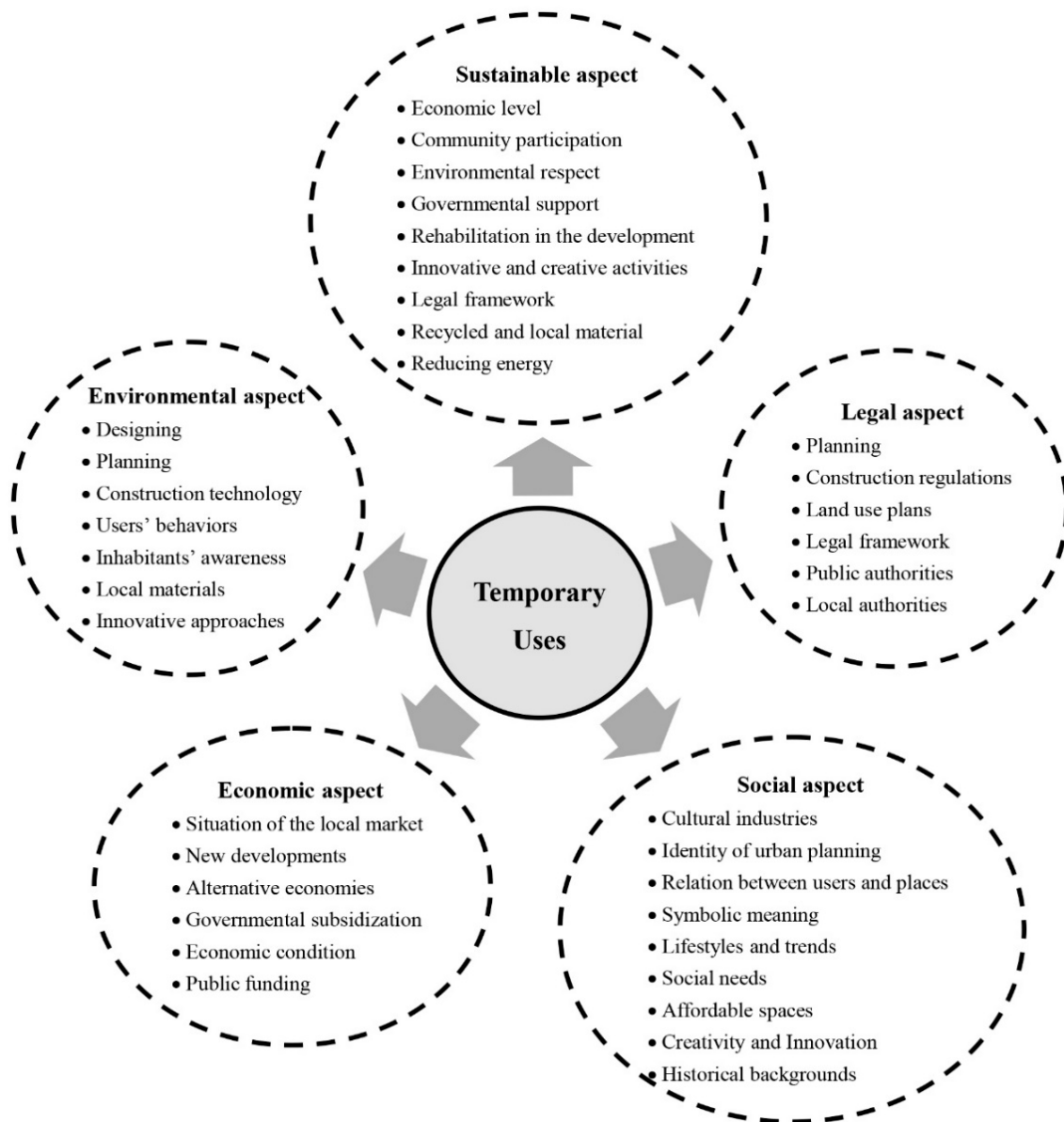


Figure 1 Diagram summarizing the different elements of temporary uses' aspects.

3.1. The Environmental Aspect of Temporary Uses

The relation between designing, planning, construction technology, and users' behaviors forms the effects on the urban environment. Problems in cities' design or planning cause environmental problems. Users' behavior, as well as construction, and planning rules of cities have to be influenced by environmental concerns (Tonkiss, 2013). Temporary uses can work as living labs with the participation of users, who help in protecting the environment via presenting the required knowledge to change the inhabitants' footprint. Also, they increase their awareness of how to change the environmental impact. Involving inhabitants in environmental actions will help governments to integrate environmental goals into inhabitants' daily life.

People should respect and protect the surrounding environment, and they have to be aware of its values. Temporary uses in open spaces are supposed to have a strong connection with the surrounding environment. Thus, it has to be innovative and its materials fit the given environment. In other words, using local materials that suit both the environment and local weather (Susilo, 2015).

Temporary use in natural space creates a special sense of it in an intensive period. Consequently, innovative approaches to temporary uses provide alternative ways for reactivating the use of natural spaces in cities.

They are intentionally transmitted and moved from one place to another to suit the constantly transformed nature of the city (Bowring & Swaffield, 2013). These moveable temporary uses with their technology must not harm these natural spaces.

3.2. The Economic Aspect of Temporary Uses

Economists consider this sector as one of the most necessary investments in cities. For instance, the density and rotation of these investments depend massively on the status of the local market, and they have effects on the new developments. There are similarities between the economies of temporary uses; none of them mostly and exclusively focuses on financial assets. Despite having a specific launch, temporary uses are still linked to the economic situation. They can exist in urban spaces with low economic support. The character of temporary uses proposes many alternative economies, especially, those based on the swap, social principles, and recycling of existing values. These produced values can be transformed into monetary ones. Temporary uses can mix these economies and set up a self-containing establishment. After a while, they move out of the temporary shape. For example, a design and art gallery, which start in recycled disused space developed as a professional one, can stay in the market even after the surrounding space has been developed (Catalysts, 2003).

As it is difficult to get this level of self-containment, governmental subsidization plays a significant role in helping these uses to continue. They get different amounts of subsidization according to the type of use; also, it depends on the economic condition of the city. Recession, therefore, allows more opportunities for temporary uses and alternative activities. Once these temporary uses get to launch, public funding will be found and temporary uses will be more stable (Catalysts, 2003).

3.3. The Social Aspect of Temporary Uses

Temporary uses establish new cultures in societies; they focus on the strength of innovation along with the so-called “cultural industries” (Catalysts, 2003). The significant aspect of temporary use needs to be taken into consideration (Crowther, 2016). Culture is a combination of continuous dynamic activities that are repeated over time, and they reflect the identity of the society (Lara-Hernandez, et al., 2019). The identity of urban planning and the relation between users and places are constructed based on activities repeated over certain periods (Kyle, et al., 2014). The innovative improvements convert a space into a place. The space is a physical volume however the place is a result of an interactional relation where users interact and react with the surrounding space (Steele, 1981). The transformation of cultures in cities bases on the diversion from cultural consumption to cultural production. It depends extremely on the opportunities that are given to designers to achieve innovation and creativity. Cultural production concerns commodities, which have a symbolic meaning more than a functional value. These symbolic products have an essential role in the specification of cities' lifestyles and trends.

The success of temporary uses can be achieved by meeting social needs (Susilo, 2015). The availability of affordable spaces for temporary uses is an essential need encouraging this kind of use. Sometimes you can achieve success with your initiation, but you may lose the attraction at any time. Due to this fact, several problems happened in society, and they leave behind numerous unpaid and exhausting creative talents. Investors can help in this situation by giving priority to improving their business via creativity and innovation (Susilo, 2015).

The difference in the historical backgrounds of cities makes the context of temporary uses different from a place to another. We can find that certain cities have the culture of temporary use more than others do. For example, Berlin has many historical changes, which give the temporary uses permission to take place. Italy does not have this powerful alternative movement, but it has a history of informal activity. Moreover, cities such as Helsinki and Vienna do not have a culture of temporary activity (Catalysts, 2003).

3.4. The Legal Aspect of Temporary Uses

Planning and construction regulations are vital instruments to facilitate the introduction of temporary uses in urban development. It suggests adding temporary uses in land use plans and identify their regulations in the planning and construction laws (Catalysts, 2003). The legal framework of public spaces' use produces activities that inspire community, as moral processing (Lara-Hernandez, et al., 2019).

Many cities across the world over the mid-nineteenth and early twentieth centuries updated their planning and construction laws to give a sense of safety and welfare for users and inhabitants. The general effect is to secure buildings to be strong and safe, however; it makes the establishment of more temporary structures difficult (Bishop & Williams, 2012). The obsession with permanence was changed when people and planners accepted the concept of the changing dynamic city. The most permanent thing in urbanism is the change; it looks like temporary uses fitting the current situation.

Public authorities have a prominent role in helping temporary uses to be successful. For instance, they can initiate and intercede processes by assisting in proposing sites, conceding sites with suitable conditions, smoothing licensing steps, or giving financial counsel (Lehtovuori & Ruoppila, 2012). The independent partners who manage temporary uses and public authorities that put urban planning guidelines should work as experts. They skillfully cooperate with other partners like visitors, property owners, and the media (Arlt, 2006).

Local authorities can facilitate the role of the temporary uses. They can enhance the overall framework by adjusting urban planning models and tools to suit temporary uses' particular needs (Urban Catalyst & Overmeyer, 2007). Besides, local authorities can empower several agents to perform temporary or sustain automatic development (Lehtovuori & Ruoppila, 2012). With the limitation of public resources, urban planning should be more flexible; it enables urban development to work as a range of temporary actions along with manageable tracks (Bishop & Williams, 2012).

3.5. Sustainable Aspect of Temporary Uses

The sustainability of temporary uses is affected by economic level, community participation, environmental respect, and governmental support. In general, they depend on the concept of rehabilitation in the development, which is divided into four parts: social, economic, institutional, and physical rehabilitation. The sustainability of temporary uses can be achieved by active participation from inhabitants, which will raise the sense of pride and belonging. Furthermore, economic activities increase community benefits throughout building the potential of the area with innovative and creative activities attracting investors. Institutional rehabilitation looks for an appropriate legal framework for these uses. Respecting the environment and physical rehabilitation can be secured by using recycled and local material as well as reduce energy through using environmental factors (Susilo, 2015).

4. A Case study on Muscat, Sultanate of Oman

Muscat city is the capital of the Sultanate of Oman, and it is located in Muscat governorate, which is the economic and administrative center of the country. Muscat is located in the southern part of the Batinah coast on the Gulf of Oman. Muscat Governorate is the densest region of Oman that contains six states Wilayat, Muscat, Mutrah, Bousher, Al Seeb, Al Amirat, and Qurayyat (Muscat Municipality, n.d.). Omani government examines its urban potential and future development through temporary uses in public spaces during numerous festivals. Which makes these public spaces more livable places. Muscat Municipality applies this vision through two remarkable festivals in Muscat, which enhance local tourism and promote what Oman can provide to society. These festivals are Muscat Festival and Sur Al Hadid Beach Carnival. This research explains how these two events work to achieve their goals through the different aspects of temporary uses. Moreover, 83 semi-structured interviews during workshops were used to triangulate the observations and analysis.



Figure 2 Google earth map of Muscat city showing (1) 'Qurum Park' and (2) 'Al Azaiba area' that were the locations of Muscat festival before 2013. (3) 'Al Amerat park' and (4) 'Al Nasim Park' are the locations of the recent Muscat festival from 2013 to 2019 and their relation to (6) Muscat International Airport. Also, the location of (5) 'Sur Al Hadid beach carnival' (Source: after Google Earth).

4.1 Muscat Festival

Since 1998, Muscat Municipality organizes a yearly festival called Muscat festival. It includes numerous recreation and cultural activities over one month. This festival is considered a microcosm of what makes Oman privileged. Thousands of visitors attend this yearly festival for over twenty-one years until the last one in 2019. Many governmental and private sector institutions cooperate to organize this event (Muscat Municipality, n.d.). This temporary event enhances local tourism and promotes the Muscat governorate local products. Temporary uses in this festival include a variety of activities that suit all ages and cover most of the topics. The event takes place in many locations mostly in public parks. Before 2013, it was held in Qurum Park and Al Azaiba area. From 2014 until the last festival in 2019, it was held in Al Amerat Park and Al Nasim Park to be more accessible. Muscat Municipality sought to achieve diversity and renew the content of these temporary uses from a year to another. It usually includes a set of cultural, educational, scientific, artistic, touristic, commercial, and sportive activities, which differ from the original use of these public spaces. The urban design of these public spaces allows hosting these different temporary uses. Muscat Municipality worked in this festival to meet the expectations of visitors and tourists and promote Oman as a historical and cultural country. Muscat Municipality canceled Muscat Festival 2010 to reduce the spread of swine flu (Muscat Municipality, n.d.), also Muscat Festival 2020 is canceled to mourn Sultan Qaboos, as well as Muscat Festival 2021 is canceled to reduce the spread of COVID-19.

4.1.1 The Environmental Aspect of Muscat Festival

The municipality closed the two parks Al Amerat Park and Al Nasim Park that serve as the main venues of this temporary use for maintenance and construction work to prepare for the Muscat Festival. This temporary use barely had harmful effects on the nature of these parks. Furthermore, it helps in the regular maintenance of these public spaces. The designs of the temporary uses match the nature of the public spaces as well as the Omani culture. The event always takes place during winter as the weather is suitable to conduct outdoor activities (Muscat Municipality, 2019).

4.1.2 The Economic Aspect of Muscat Festival

Muscat Festival and its temporary activities play an influential role in activating commercial and economic mobility through reviving the local market and promoting traditional handicraft products. Different levels

of business in Oman benefit from this temporary use starting from small businesses to big institutions. Muscat Festival is an entertainment event, but it contributes to the national economy of Oman.



Figure 3 Images during Muscat festival 2018 showing some activities -Omani bands, traditional products and activities, leisure and educational activities for children- (Credit: Author, 2018).

4.1.3 The Social Aspect of Muscat Festival

Muscat Municipality always works on engaging the private sector in decision-making. Any institution or company interested in participating in the Muscat Festival can introduce its ideas or plans to the municipality (Muscat Municipality, n.d.). This temporary use emphasizes the environmental and cultural diversity of Oman. They are reflected through the activities and programs created to be Omani frontages promoting traditions, heritage, and identity (Muscat Municipality, n.d.).

This festival is always launched in the mid-year vacation for school and college students; it gives inhabitants a chance to enjoy the festival. The activities were distributed at two locations in Muscat: Al Amerat Park and Al Nasim Park, which are on different sides of Muscat to be accessible for most inhabitants as shown in figure 2. This temporary use includes programs and events as well as innovative, educational, and recreational activities for children not only to enhance their creations and abilities but also to polish their hobbies. Furthermore, the festival offers numerous sportive events to achieve young people's needs (Muscat Municipality, 2019). This festival provides a diversity of activities and events targeting all community segments. It is both a ceremonial event and a form of thought, culture, and tradition that

reflects the culture of Oman. The organizing company always surveys to evaluate and monitor visitor satisfaction to determine and identify their needs. This survey helps in improving the festival from a year to another.

4.1.4 The Legal Aspect of Muscat Festival

Muscat Municipality plays a principal role in combining all participants along with the role of management, instruction, and orientation of this temporary use to serve the promotion of tourism, culture, and civilization of the Sultanate (Muscat Municipality, n.d.). Muscat Municipality provides advertising and logistical support throughout the festival. The entry ticket fees are so affordable, and 10 percent only goes to the municipality while the rest goes to the organizer.

4.1.5 The Sustainable Aspect of Muscat Festival

Oman works on involving sustainability principles in its national development plans (SustainableOman, n.d.). This temporary use has a sustainable approach, and it depends on public-private participation. It also respects the nature of public spaces, which work as the main venues for this temporary use. On the other hand, this temporary use contributes to the regular maintenance of these public spaces and has a positive effect on economic mobility. Furthermore, the design of the facilities was flexible with affordable cost using local materials.

4.2. Sur Al Hadid Beach Carnival

Sur Al Hadid Beach Carnival is the first such event in Oman. According to Muscat Municipality, about fifty thousand visited this event. It was organized jointly between the Ministry of Tourism, Muscat Municipality, and Oman Tourism Development Company called Omran. The event was a part of an initiative to promote domestic tourism and enhance what Oman can provide to society. The event was held on three days from the 7th to the 9th of March 2019. Muscat Eat managed this event, 70 homegrown brands were hosted. It included food trucks, popular brands for perfumes, gifts, jewelry, traditional foods, as well as various interesting subjects and activities for families. Besides, fresh Omani food made at home by local businesses of Al Seeb community. There were also water sports including kayaking, jet-skiing, and banana boat.



Figure 4 Images of Sur Al Hadid area in Welyet Al Seeb showing the location before and during the carnival (source: image (a) the researchers and image (b) (Shaqsi, 2019)).

4.2.1 The Environmental Aspect of Sur Al Hadid Beach Carnival

Sur Al Hadid Beach was selected for this temporary use because it is designed to meet the contemporary urban needs of society. It was appropriate for this type of use and the activities. Both the temporary use design and participants' behaviors worked on reducing the side effects on the natural spaces and respecting the surrounding environment. The event was held during winter to be suitable for outdoor activities, as Oman is known for its high temperature and humidity most of the year. There were

educational workshops arranged for children to enhance their awareness of sustainable actions for environmental protection. They were about environmental protection and plastic recycling.

4.2.2 The Economic Aspect of Sur Al Hadid Beach Carnival

This temporary use contributes not only to increase local tourism in the country but also to set a healthy environment for Small and Medium Enterprises (SMEs) in Oman. It provides new opportunities for business as this temporary use encourages Oman's local tourism movement. Furthermore, it succeeded in attracting investments to support small and medium projects for local community members and institutions.

4.2.3 The Social Aspect of Sur Al Hadid Beach Carnival

This temporary use of Sur Al Hadid Beach includes a lot of desirable activities and subjects for various inhabitants of different ages. Local bands play traditional Omani and modern music, a range of water sports for adventurers, a beach volleyball tournament for healthy competition, arts and crafts activities for kids existed. Furthermore, it provides traditional products and numerous popular brands for many products in one place. This means that each one in the family found attractive subjects in this event. The organizers of this temporary use work on creating a fun-filled experience for the users. They devote themselves to secure creative ways to bring out people's attention to outdoor activities.

The organizers work on ensuring an inclusive and appropriate experience for participants through providing essential services such as free public transport from several pick-ups and drop-off points, first-aid, and emergency services secured with high efficiency. Besides, full online information about the event and an online survey to register visitors' feedback are provided. They work on encouraging inhabitants to participate in this event and ensure their safety.

4.2.4 The Legal Aspect of Sur Al Hadid Beach Carnival

Ministry of Tourism -public authority-, Muscat Municipality -local authority-, Oman Tourism Development Company - Omran -organizer of the event-, and various partners as sponsors skillfully cooperate to hold Sur Al Hadid Beach Carnival as a temporary use in public space. This temporary use falls in line with the National Tourism Strategy of Sultanate, which aims at creating innovative activities to promote local tourism. It helps in the success of this temporary use.

4.2.5 The Sustainable Aspect of Sur Al Hadid Beach Carnival

Oman is ranked as the second of the most sustainable countries in the Arab Region, and sustainability always has a place in its development plans (SustainableOman, n.d.). This temporary use depends on the participation of the inhabitants, which raises the sense of pride and belonging. Furthermore, this innovative and creative temporary use increases community benefits by building the area's potential under an adequate legal framework. Also, it respects the nature of the surrounding environment. As well, the design of the facilities for this temporary use is flexible at an affordable cost.

5. Analysis of the Findings from the Questionnaire Survey

This study focuses on examining the efficacy of temporary uses in public spaces. In total, 83 semi-structured interviews operated after the last event, Sur Al Hadid Beach Carnival, in 2019 over five months, during four group workshops. A questionnaire was administered to the group participants to measure their opinions regarding the efficacy of the temporary uses in public spaces. The respondents comprise four developers; eight architects and planners; eighty-three users. 77 percent of the respondents are Omani and 23 percent Expats from different nationalities. The ages of the participants are ranged from fifteen to sixty-three. 72 percent of the respondents are from the Muscat governorate and 28 percent from the other governorates.

This study establishes the significance of following the environmental, economic, social, legal, and sustainable aspects of the temporary uses as a viable approach that can lead to the success of temporary uses in public spaces. The findings from stakeholders' interview after discussing the temporary uses in

public spaces during festivals in Oman according to the five aspects show that; from an environmental perspective, respondents believed to a large extent that the design and the construction technology of these temporary uses respect the nature of the venue and the surrounding environment. As well as they agreed that, the participants take the responsibility of reducing their footprint. From an economic perspective, these temporary uses in public spaces are considered to a large extent by the respondents to be a good contribution to the local economy. From a social perspective, the respondents believe that these temporary uses contribute to achieving some significant goals include: convert the spaces into places and meet the social needs. From a legal perspective, respondents agreed that public authorities, local authorities, and other partners skillfully cooperate to secure success for these temporary uses. From a sustainable perspective, respondents believed to a large extent that these temporary uses follow many sustainable principles regarding community participation, environmental respect, governmental support, building the potential of the area, and using environmental factors.

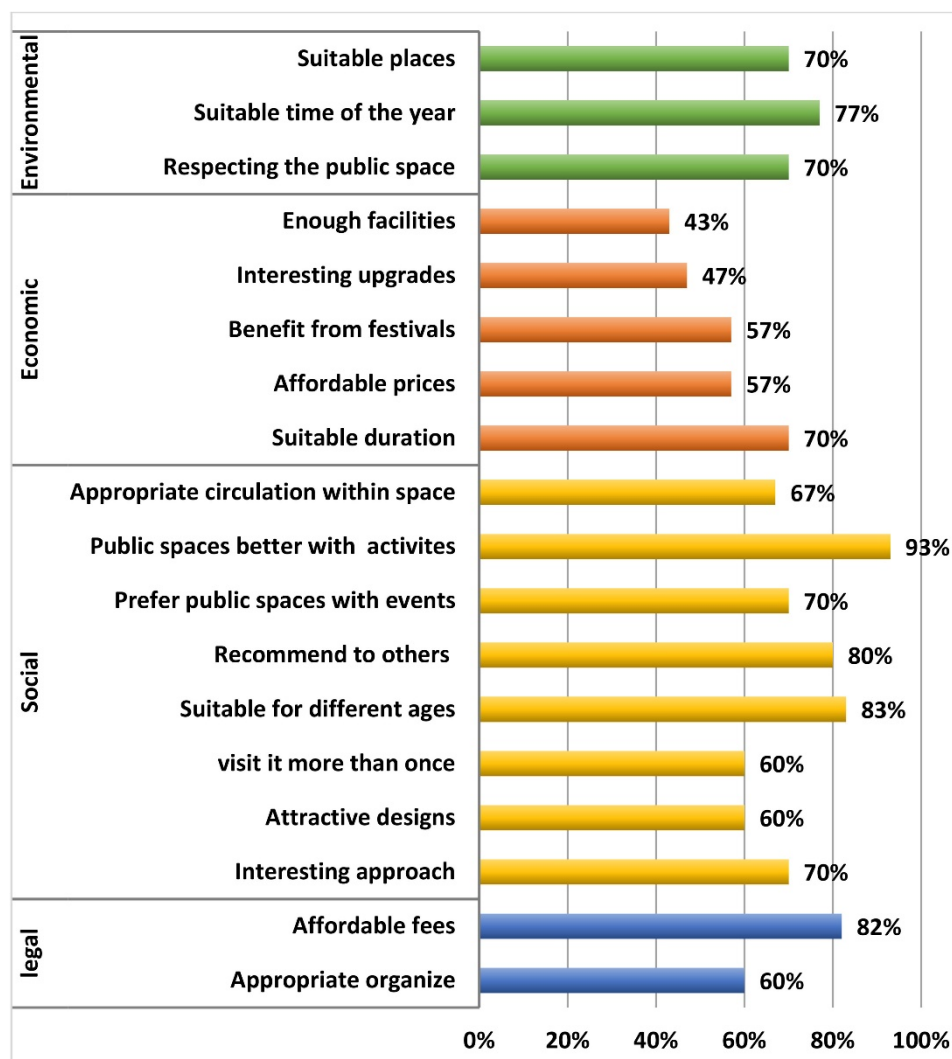


Figure 5 Diagram summarizing the findings from the users' questionnaire survey about the temporary uses in public spaces during the festivals through the different aspects.

The questionnaire survey aimed at measuring the users' opinions regarding the temporary uses in the public spaces during the festivals. The questions were about the events' timing, duration, locations, organizations, facilities, and the changes from an event to another. Also, the questions focused on whether or not the participants notice any harmful effect on the nature of the public spaces regarding the temporary uses. If they prefer the public spaces with these temporary uses, whether or not these temporary uses add to the value of the places, whether or not they benefit from these uses, and whether or not they

recommend this event to others. Finally, what they want the next time and what to exclude. The results from the users' questionnaire survey highlight some major factors that could affect the decision-making process of temporary uses in Omani public spaces, which include the followings:

- Seventy percent of the respondents look forward to these types of festivals and their temporary uses. As they help them enjoying the public spaces in different ways and learning about different cultures from other countries, they consider them unique events to wait for from a year to another.
- Sixty percent visited these events more than once in a single duration to enjoy the various activities included.
- Eighty-three percent found that these events and their activities are suitable for different ages as they can spend time with family enjoying them several times.
- Seventy-seven percent found that the date of the events is suitable, but the rest suggested holding them close to the summer vacation to extend the duration and to be able to enjoy them more. However, the high temperature and the humidity at this time will affect the success of the activities because it is not a suitable time for outdoor activities.
- Seventy percent agreed that the duration of these events is suitable, and thirty percent asked to extend the time to be able to enjoy them.
- Seventy percent found that the locations of the events are suitable however, fifty-three percent asked to hold activities in other places inside and outside the capital to avoid overcrowding during these events and to be able to enjoy other public spaces.
- Forty-seven percent liked the improvements from a year to another; however, the rest did not. They indicated that they became worse as good activities disappeared. They referred to the economic condition of the country as the government reduced the budget of these festivals.
- Sixty percent found that the organization of these events was good, but the rest said that they need more organization especially the motorized circulation within the parking area. Forty percent said they are required more organization due to overcrowding that makes the car movement difficult. Otherwise, sixty-seven percent found the circulation within space was organized and it was easy to reach the facilities. However, forty-three percent said that the facilities were not enough such as the food court and bathrooms.
- Fifty-Seven percent found that the prices of the products were appropriate, but the rest said they were expensive.
- Thirty percent recognized that festivals and temporary uses in public spaces have harmful effects on the nature of these public spaces.
- Thirty percent prefer to enjoy public spaces without having these temporary uses.
- Ninety-three percent found that these temporary uses add to the value of the public spaces and encourage them to spend more time in such places with family and friends.

Further studies and assessments are in progress, as a questionnaire is administered to a group of stakeholders to investigate how to implement temporary uses in public spaces during the spread of COVID-19.

6. Conclusion

The study discussed in this paper examines the efficacy of the different aspects of temporary uses that can help to achieve sustainability of temporary uses in public spaces and stresses the need to develop some tools facilitating such success. The initial step toward developing such tools is changing the urban planning and construction regulations to involve temporary uses within the development strategies. Furthermore, planners and policymakers can utilize temporary uses as an interactive lab for experimentation, which will be considered a powerful mechanism to enhance urban development. Besides, increase the inhabitants' awareness of their role in the success of these temporary uses, whether they are users or investors

especially in the current socio-economic circumstances regarding the spread of COVID-19. Finally, the environment is the main pillar in this process that should be respected to lead the success of these uses. None of these objectives will be achieved without the cooperation between governments, private institutions, and other partners.

The Sultanate of Oman has leading examples of temporary uses in public spaces that attract local tourism and promote the economy over the last two decades. This success is due to the cooperation between the public and local authorities with the organizers to promote what Oman can provide to society. Moreover, it urges inhabitants to be involved in the development decisions and encourages investors to participate in these temporary uses. Oman follows many principles of sustainability, and it is one of its main development themes. These temporary uses constitute an addition to the agenda of public activities, which recently grow in Oman. However, they still need to be improved to meet social needs as the number of participants exceeds the expectations where the facilities are not enough, and the upgrades could not meet them.

7. References

- Arlt, P., 2006. Urban planning and interim use. In: F. Haydn & R. Temel, eds. Temporary uses of urban spaces: How are they understood as 'creative'? s.l.:Basel: Birkhäuser, pp. 39-46.
- Baker, L., 2014. Temporary Architecture. s.l.:BRAUN.
- Bishop, P. & Williams, L., 2012. The Temporary City. 1 ed. London and New York: Routledge.
- Bowring, J. & Swaffield, S., 2013. Shifting Landscapes In-Between Times. Harvard Design Magazine., Volume 36.
- Catalysts, U., 2003. Strategies for temporary uses – potential for development of urban residual areas in, Berlin: studio urban catalyst.
- Crowther, P., 2016. Temporary Public Spaces: A Technological Paradigm. The Journal of Public Space, Volume 1(1), pp. 63-74.
- Ferreri, M., 2015. The seductions of temporary urbanism. ephemera: theory & politics in organization, Volume 15(1), pp. 181-191.
- Fox, R., 2015. Creating a Typology of Temporary Landscapes, Kansas, USA: College of Architecture, Planning, and Design, Kansas State University.
- Kohoutek, R. & Kamleithner, C., 2006. Temporary Uses, Deregulation and Urbanity. In: R. Temel & F. Haydn, eds. Temporary Urban Spaces: Concepts for the Use of City Spaces. first ed. s.l.:Basel: Birkhauser.
- Kyle, G. T., Jun, J. & Absher, J. D., 2014. Repositioning Identity in Conceptualizations of Human–Place Bonding. Environment and Behavior, 46(8), pp. 1018-1043.
- Lara-Hernandez, J. A., Melis, A. & Lehmann, S., 2019. Temporary Appropriation of Public Space As an Emergence Assemblage for the Future Urban Landscape: The Case of Mexico City. Future Cities and Environment, Volume 5(1), pp. p5, 1–22.
- Lehtovuori, P. & Ruoppila, S., 2012. TEMPORARY USES AS MEANS OF EXPERIMENTAL URBAN PLANNING. original scientific article, pp. 29-54.
- Mayo, J. M., 2009. Temporary Landscapes. Journal of architectural and planning research, June.
- Muscat Municipality, 2019. 20 years after inauguration. [Online]
Available at:
<https://www.mm.gov.om/Page.aspx?PAID=2#NewsDetails&MID=16&NID=1972&MoID=1>

- Muscat Municipality, n.d. A local and international tribute to Muscat Festival 2018 The conclusion of Muscat Festival 2018 events. [Online]
Available at:
<https://www.mm.gov.om/Page.aspx?PAID=2#NewsDetails&MID=16&NID=2004&MoID=1>
[Accessed 27 2019].
- Muscat Municipality, n.d. Canceling the next session of the Muscat Festival. [Online]
Available at:
<https://www.mm.gov.om/ar/Page.aspx?PAID=2#NewsDetails&MID=16&NID=892&MoID=1>
[Accessed 18 June 2021].
- Muscat Municipality, n.d. Investment in Muscat Festival 2019. [Online]
Available at:
<https://www.mm.gov.om/Page.aspx?PAID=2#NewsDetails&MID=16&NID=2101&MoID=1>
[Accessed 27 2019].
- Muscat Municipality, n.d. Muscat Festival. [Online]
Available at: <https://www.mm.gov.om/Page.aspx?PAID=2#Details&MID=15&PGID=167>
[Accessed 27 2019].
- Muscat Municipality, n.d. Wilayats of Muscat. [Online]
Available at:
<https://www.mm.gov.om/Page.aspx?PAID=3#Details&MID=22&Slide=True&PGID=158>
[Accessed 14 7 2019].
- Pogoreutz, M., 2006. Urban Intelligence. In: R. Temel & F. Haydn, eds. Temporary Urban Spaces: Concepts for the Use of City. first ed. s.l.:Basel: Birkhauser.
- SenStadt, 2007. Urban Pioneers: Temporary Use and Urban Development in Berlin.. Berlin: Jovis.
- Shaqsi, Z., 2019. Al-Hadid Carnival, in the Wilayat of Al-Seeb, s.l.: s.n.
- Steele, F., 1981. The Sense of Place. first ed. Boston: Mass: Cbi Pub Co.
- Stevens, Q., 2018. TEMPORARY USES OF URBAN SPACES: HOW ARE THEY UNDERSTOOD AS 'CREATIVE'?. Archnet-IJAR: International Journal of Architectural Research, November.12(3).
- Susilo, W. H., 2015. Opportunity For New Entrepreneurial Ventures from Sustainable Public Open Space Adaptive Used Implementation (Case Study: Taman. Applied Mechanics and Materials, Volume 747, pp. pp 44-47.
- SustainableOman, n.d. Sustainable Development in Oman: A Timeline. [Online]
Available at: <http://www.sustainableoman.com/sustainable-development-in-oman-a-timeline/>
[Accessed 30 6 2019].
- Tonkiss, F., 2013. Cities by design: the social life of urban form. s.l.:Polity Press.
- Urban Catalyst & Overmeyer, . K., 2007. Urban Pioneers: Temporary Use and Urban Development in Berlin. Berlin: Jovis Verlag.