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Public open space as unifying aspect of society: San Francisco City case

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Abstract. In the context of society, the aspects of social, culture economy, politic, are bound together and have a crucial role. Those aspects are the important factors on regional planning considerations, including in terms of architectural such as urban space organization, buildings orientation, public open space availability, impact activities, routines, and behaviour that exist within the society. By the existence of public open spaces, the people within the city will have bigger chance to fulfill their social needs. The development of public open spaces which based on the social needs and city instruments oriented will help to raise the effectiveness of society routines. The relation between public open space and city instruments are impacting one another, along with the environment. San Francisco has an attractive amount of public open space, which has regularity and space's harmony to affect social life of citizens. This paper investigates paradigm of public open space as unifying aspect of society in develop quality of life. With present paper we aim to increase the awareness of public open space in urban planning and design.

1. Introduction

In the context of society, the aspects of social, culture, economy, politic, are bound together and have a crucial role. Those aspects are the important factors on regional planning considerations on a city. In structuring and managing an area, these four aspects are taken into consideration to direct regional planning in the city to provide a special identity that represents the diversity of communities that exist in the city community. There is something that can unite diversities within the community, a place in an area of the city that serves as a forum for people to interact with each other, it is public open space (POS) [1,2].

To fully understand the public open space essence, researcher searched for the answers through the previous conducted research, it was found that with the existence of POS, the individuals in the community within the city have greater opportunities to have their social needs [2,3]. The development of POS based on the social needs of the community will support the effectiveness of the community in carrying out its routine [1,4,5]. The stress level of community can be reduced to a low point if open space is contextually developed with what the society needs and the city instruments oriented. In order to understand motivation behind the POS as unifying aspect of society, it is important to understand that this research has purposed to fill in the gap, the relationship between urban instruments and public open space. This research will critically observe, identify and analyze the inner city, suburban areas, road networks and public transportation. This paper investigates paradigm



of a connection between public open space and city instruments to produce information based on the condition of the existing city, San Francisco. In this paper, researcher takes lead by conducting research in the existence of POS and its connection to city instruments that have connection to the and the meaning of it, and link it into a concrete example of an existing city that has some similar circumstances, San Francisco.

2. Methods

San Francisco is the object that provide answers for the research, it has high probability to be named a well-built city for the people and every instruments within. Six phases are occurred in order to gather the needed data to serve it in tables and paragraphs, researcher targeting which data must be attained based on the main needs. Online journals, e-books are the sources that researcher used. From the collected data, researcher take aims into specific areas that have reasons to be analyzed, unmatched data were eliminated. From the selected data, researcher analyze the selected sample and examine, this requires researcher to trace the city map of San Francisco, and cross checking. The examined data served in paragraphs and tables.

3. Results and discussion

3.1. *Public open space and aspects of society*

In designing POS, there are features that need to be provided to make an effective development. These features are accessibility, facility, and the elements of nature. Accessibility includes pedestrian path, vehicle access, the road distribution, it is characterized by the easy access and movement system [2]. Facility includes the land use such as pathway, public needs such as sitting area, retail area, and sanitation needs. Elements of nature includes green area. These features of POS development is similar to many aspects that build society. These aspects are communities, culture, economy, identity, infrastructure, land, and natural resources. If POS developed with urban instruments oriented, it can improve the quality of society.

3.2. *Urban instruments*

Urban instruments that are related to public open spaces are the inner city, suburban areas, road networks and public transportation. The link between inner city and public open space is the existence of the public open space itself and migrants from outside cities. Generally, people from out of town recognize a place in another city based on certain places whose name is have been heard or as a place whose existence is known to many people, as well as areas of the city that act as the center of the city [5]. Population in a city set to high density during the time period on weekdays are basically because of work, and weekends are holiday and recreation [6,7]. The existence of busy activity and boisterous traffic can certainly be a stress factor in an increasing city. The availability of public open space in areas with such density can be a stress reliever for residents who undergo activities around them, as well as migrants who stop in the downtown area [6,8,9]. It means the presence of a public open space in accordance with the needs of the region, with a certain density become something to consider in the development of open areas in urban areas [9,10].

In San Francisco, the inner city is located around a POS, Union Square, which now is one of the public open spaces that also serves as local economic enhancer. Union Square is a POS in the form of an area that is the center of activity in the downtown area, which includes commercial areas around it, and also within Union Square itself. Union Square also act as stress reliever of the city center because not far from the Union Square, there are office area which also crowded when the weekdays.

The suburban area is the next instrument that has quite strong links with POS. POS need to be distributed all around the city, which include suburban areas. POS development can enhance the function of suburban areas, adding some purpose to develop the area. Hunter's Point, Midtown Terrace, Forest Hill, Forest Hill Extension, and Outer Mission are suburban areas in San Francisco.

The road network is also in the consideration of developing public open spaces [11]. This relates to the accessibility within the city. The road network that spread all over the city connects everything within the city and the outside, without an adequate network system, the functionality of a POS will not be optimal because the lack of good access will prevent visitors from coming to the available public open space [5].

Thereafter, public transportation is in the list of instruments in developing POS. This refers to the habits of city dwellers where the community travel habits using public transportation, as well as tourists coming from another cities or even from outside countries are facilitated by public transportation to explore the city [11].




As in San Francisco, the majority of POS are developed in areas that are within the reach of the public transportation network. Muni Retro, Cable Cars, Bay Area Rapid Transit, and city buses are public transportation that operates in this city. Each type of transportation has different coverage areas, and when it traced down through the city map and the available public transportation map, all available public transportation reaches almost all available POS.

3.3. Relationship between urban instrument authority and public open space

POS and urban instruments authority have interplay relations, including environmental and architecture aspects. Spatial element such as resident also effected POS planning. Building orientation is effected by both the existing POS and the ones that are still in the development, both directly and indirectly when it comes to build a building around the POS to determine the facade orientation of the building [12].

From this, the use of building components especially openings such as glass walls, windows, most likely refer to the presence of POS. In San Francisco building facades along the road around public open spaces always apply the use of large glass in order to provide a direct view from the building's interior space outwards, leading to the public open space including several window openings and ventilation to get natural air, and the use of a balcony that directly faces the green space. There is no particular architecture style that is applied specifically to the buildings facade in San Francisco.




Table 1. Building facades around the green open spaces in San Francisco.

No	Building Façade	Façade Characteristic
1.		Glen Canyon, Sub Urban Area <ul style="list-style-type: none"> • Windows and Large Glasses facing directly to the POS • The use of the wood siding on the facade • The building's entrance is orienting to the street and the existing POS. There is a little space for pedestrians • No <i>boundaries</i> in the form of a fence
2.		Golden Gate Park, Lincoln Way, Urban Area <ul style="list-style-type: none"> • Windows and Large Glasses facing directly to the POS. • The use of the wood siding and also exposed brick on the facade • The building's entrance is orienting to the street and the existing POS. There is a little space for pedestrians. • No <i>boundaries</i> in the form of a fence
3.		Mission Dolores Park, Dolores St., Urban Area <ul style="list-style-type: none"> • Windows and Large Glasses facing directly to the POS • The use of the wood siding on the side of the building • The building's entrance is orienting to the street and the existing POS. There's a little space for pedestrians • There's a boundary in the form of bushes

Source: Google Maps - Street View feature (www.maps.google.com).

From the table 1 above, it is known those three have similar design characteristics in buildings located around green open spaces where each building are oriented towards it. POS that are built with more pavement has a different characteristic. It can be seen from the three data taken from suburban areas, urban areas, and inner cities which are quite far apart from each other.




Table 2. Building facades around the public open spaces in San Francisco.

No	Building Facade	Facade Characteristics
1.		Twin Peaks, Sub Urban Area <ul style="list-style-type: none"> • The orientation of the building in Twin Peaks facing the opposite side of the open public space on top of the hill. • The majority of buildings are arranged in terraces • A residential area
2.		Alta Plaza, Clay Park, Urban Area <ul style="list-style-type: none"> • The orientation of the buildings facade are varies, most of them orienting towards the POS on arranging the entrance, and openings,
3.		Union Square, Post St., Inner City <ul style="list-style-type: none"> • Facade is orienting towards the POS • The majority of buildings are arranged in terraces • A commercial area

Source: Google Maps - Street View feature (www.maps.google.com).

The difference is considered conditional which depends on how developer constructs the building whether to orientate to POS or not (Table 2). Moreover, This difference in orientation is also influenced by the location of public spaces that can be accessed by using public transportation.

Table 3. Building facades near public transportation lane in San Francisco.

No	Building Facade	Facade Characteristics
1.		Bayview Park <ul style="list-style-type: none"> • The facade is oriented towards the Mini Retro lane • windows, openings and entrance of the building also oriented directly to the Muni Retro lane
2.		Balboa Park <ul style="list-style-type: none"> • The facade is oriented towards the residential street • windows, openings and entrance of the building also oriented directly to the residential street
3.		Alta Plaza <ul style="list-style-type: none"> • The facade is oriented towards the road through public transportation, which is a city bus. • windows, openings and entrance of the building also oriented directly to road




Source: Google Maps - Street View feature (www.maps.google.com).

Judging from table 3, it can be seen that the architectural component of buildings in the surrounding area is not oriented to noise due to activities on the streets and places traversed by public transportation.

3.4. The impact of social change due to the existence of public open space

Cities were invented to facilitate exchange. The city's health on economic, social, cultural and environmental are determined to its quality of exchange. Public spaces act as a crucial channel in this process of exchange, providing platforms for daily interaction and information flows. At their best, public spaces act like a self-organizing public service; just as hospitals and schools provide a shared resource to improve people's quality of life, public spaces form a shared spatial resource from which experiences and value are created in ways that are not possible in our private lives alone [13]. Public open space also plays a vital role in social and economic life of the communities within its reach. As in San Francisco, Union Square played this role and run the inner city life in a good way.

Table 4. Selected areas of space organizing in San Francisco.

Union Square Area	Mission Dolores Area	Bayview Area
Regional organization using the grid system that is neatly arranged because from the beginning of the development, commercial area and the city park is arranged to be the inner city of San Francisco	Regional organization using the grid system that is neatly arranged because from the beginning of the development, the area is formed to be a residential area with a city park in it.	Organization of residential areas that are formed is the grid system which is composed by planning the function of land as a settlement that has its own open public space
		

Source: Google Maps (www.maps.google.com).

Judging from table 4, from three spatial organizations on different city instruments, it can be seen that the city spaces in San Francisco are arranged in grid patterns according to the existing conditions in San Francisco land such as hills, planned function lands, and also the planned area. From these grid patterns, all existing city components can be arranged in an orderly fashion, and can rhyme with the existing urban areas. So, it can be concluded that the open spaces in San Francisco have a variety of characteristics, which are based on existing conditions and consistency of urban planning. Even though San Francisco has experienced a valuable expansion on a large scale in parts of the city, planners continue to prioritize the provision of community integration space in the form of public open space.

4. Conclusion

Based on all of the observations made from various aspects related to city instruments as well as public open space above, it can be concluded that public open space is important to bring unity and harmony to the many instruments in the city, starting from the layout of urban space, architecture of the buildings, a well-organized city road network, and foremost, people who live in the city of San Francisco. These things can be harmonious and become a good unity in city life, so that public open space can become a unifying aspects of community life.

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