

# Public Open Space as Unifying Aspects 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 behaviors 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 society social needs, will raise the effectiveness of their routines. The relation between public open space and city instruments are impacting one another, along with the environment. The City of 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 investigate 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.

**Keywords** — Public Open Space, Urban Instruments, Society, Building's Facade, San Francisco

## 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 in providing a special identity that represents the diversity of communities that exist in the city community. As well as the diversity that exists in the community, there is something that can unite them, namely a place that is in an area of the city that serves as a forum for people to interact with each other, it is one definition of public open space [1][11]. This certainly provides a solution to create unity in diversity to the community.

Humans as social beings, certainly have a need for social interaction in their daily lives, especially within a society. No matter how crowded, busy, hectic their activities are, they will certainly carry out social interactions with other humans. For example, in the daily life of someone who even lives alone, has a personal vehicle, well finances and skills that are qualified in living their daily lives, there must be at least one interaction with other human beings - no matter how small or simple the interaction - unconsciously, humans need it, during their trip to their place of work, when they arrive at work, at

recess, and until later returning to their homes there must be an interaction in the routine [12]. Even though they do not interact directly in the routine, they can carry out social interactions with close relatives through the gadget that they have using existing social media. Knowing this, it is nearly impossible that someone doesn't do any social interaction on the daily basis.

With the existence of public open space, or oftenly referred to by urban planners and landscape architects by the acronym 'POS', the individuals in the community within the city have greater opportunities to have their social needs [3][11]. The development of public open space based on the social needs of the community will support the effectiveness of the community in carrying out its routine [1]. The level of community stress can be reduced to a low point if the availability of open space is contextually developed with city instruments, and is spread within certain reach in various corners of the city and in accordance with the needs of the community that exists in the coverage of the open space area [4].

## **2. Motivation and State Of The Art**

In order to understand motivation behind the public open space as unifying aspect of society, it is most important to understand factors urban instruments issue, including 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 investigate 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 a research between each and every city instruments that have connection to the existence of public open space and the meaning of it, and link it into a concrete example of an existing city that has some similar circumstances, in this case is San Francisco.

## **3. Result And Discussion**

### *3.1. Urban Instruments*

City 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. Judging from this, the existence of a public open space in terms of reach to the inner city area and the spread of public open spaces from the city center. Apart from existence, there is another link, the population density during the active time of the city. The city center is a busy area of activity at certain times, generally in the morning until late at night. Activities that make the population is on the high density during the time period on weekdays are basically work, and weekends are holiday and recreation [9][10]. During these times, the streets of the city center were crowded with vehicles and pedestrians. 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 will certainly be a stress reliever for residents who undergo activities around them, as well as migrants who stop in the downtown area [5][6][9]. This 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 [6][7].

In the City of San Francisco, the inner city / city center is located around a public open space, namely Union Square, which now is one of the public open spaces that also serves as local economic enhancer. Union Square is a public open space 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 become the stress reliever of the city center. Because not far from the Union Square, beyond the block, there are working spaces blocks which also crowded when the weekdays.

The suburban area is the next instrument that has quite strong links with public open space. Urban areas have links to distribution of the city, as well as the need for public open space, it needs to be

distributed all around the city. Basically, suburban area is a developed area whose development is the result of an expansion of urban areas with the aim of establishing a mix-use area or residential area to provide shelter for residents of the city. Judging from this understanding, suburban areas are areas which in fact are additional to urban areas where this means that this area was developed for a reason, such as population density that began to be unstoppable, the discovery of technologies that can change land that cannot be built into can be built, and various other reasons relating to the interests of a party. Hunter's Point, Midtown Terrace, Forest Hill, Forest Hill Extension, and Outer Mission are suburban areas in the City of San Francisco.

These areas were developed based on their own reasons. The Outer Mission was developed as an extension of the Mission District area. This area was developed as a residential area. This area is traversed by the Southern Pacific Railroad, which is a public vehicle in the form of an electric train. Hunter's Point was developed based on the diversion of the area where the Hunter's Point was a place where many ships were neglected due to the California Gold Rush event and the Hunter's Point area became a haven for gold miners who contributed to the California Gold Rush event by setting up tents, a stopover , around the abandoned ships. Now Hunter's Point is a relatively isolated residential area because it is inhabited by Negro race people and other minorities.

Midtown Terrace, Forest Hill, and Forest Hill Extension are residential areas that were developed when Cable Cars technology was discovered. The discovery of Cable Cars provides a way for the city government to create city-scale public vehicles that can carry passengers on a large scale and are able to pass roads that are difficult to trace by public vehicles at that time. Shortly after the discovery of this technology, the government immediately implemented an expansion of the city area by opening up forests in the hills and developing the land into additional settlements to serve as residents of San Francisco that can be reached by Cable Cars.

The road network is the next instrument in the consideration of developing public open spaces [2]. This relates to the accessibility of urban spaces to existing public spaces. The road network that is spread all over the city connects one side of the city, to the other, one district to another districts, one block to another block, as well as one public open space to another public spaces. The road network system consists of a primary road network system, and a secondary road network system. Primary road network system is a road network system with the role of service distribution of goods and services for the development of all regions at the national level, by connecting all distribution service nodes in the form of activity centers.

This system refers to the public interest in an urban area in the overall economic aspect of the city which is the center of activity, especially trade and services. The secondary road network system is a road network system with the role of distribution on goods and services to the people that live in the urban areas. This system refers to the public interest in the city that is destined for distribution from activity centers to urban areas in the residential part. Judging from the explanation above, it is clear that the connection is the road network system gives each city components a link to one another, and can also connect one city to another. It can also be concluded that the most important aspect of the affordability of a public open space is accessibility. Without an adequate network system, the functionality of a public space will not be optimal because the lack of good access will prevent visitors from coming to the available public open space.

Thereafter, public transportation is also one of the important instruments in the development of public open space. There is a connection to the existence of a place with the availability of public transportation networks in a city [2]. This refers to the habits of city dwellers where the community has the habit to travel using public transportation, as well as visitors / tourists coming from another cities or even from outside countries are facilitated by public transportation to explore the city [2].




As in the city of San Francisco, the majority of public open spaces 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 public open spaces.

### 3.2. Relationship Between Urban Instrument Authority and Public Open Space

Public open space and urban instruments authority have interconnected relations, including environmental and architecture aspects, like façade, and building orientation toward public open space. In addition, spatial element such as resident also affected public open space planning. Building orientation is effected by both the existing public open spaces and the ones that are still in the development, both directly and indirectly. This relates to the existence of public open space that is already available, when someone or some company wants to build a building around the public open space, then the public open space will be one of the main considerations of determining the orientation of the facade of the building [8]. With the existence of a public open space near the site, the owner is given an additional choice, namely to utilize the point of view of the public open space in the direction of the building to be erected. One's desire will be provoked to help highlight the existence of the building to be erected, in various ways such as erecting buildings by a unique and compelling mass composition, the use of colors that give emphasis to the building against its surroundings, and various other ways to try to go hand in hand with existence that public open space.

From this, the use of building components, especially openings such as glass walls, windows, will refer to the presence of the public open space, in order to get its own view that can be enjoyed from the inside of the building. If the public open space near the site is a green open space, we can be sure that this is one of the main considerations in applying openings in the form of windows and large glass to give a natural impression to building users by giving a direct view of the trees and vegetation in the green open space. Users can also get a natural airtime, if the window settings in the orientation are implemented properly. In the city of 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, as well 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 Facade around the Green Open Spaces in The City of San Francisco

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

Based on three settlements above, which are surrounded by open space known that have similar design characteristics, such as facades, openings and building entrances oriented to green open space areas; unavailability of boundaries between buildings and roads that surround open spaces. This similarity can also be seen by the building materials, where the three facades use brick walls, whether exposed or not, and some brick walls are covered with wooden siding, especially on the front and side of the building facade. These things prove that the city of San Francisco has similar characteristics, especially in buildings located around green open spaces, where each building is oriented towards it.


Unlike the Green Open Space area, public open space that are built with more pavement than greening has a difference 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, the difference that appears is an adjustment of the area, with its orientation towards public open spaces, and with the main function of the area.



Table 2. Building Facade around the Public Open Spaces in San Francisco

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

The difference is considered conditional which depends on how the area developer constructs the building, are they referring to the orientation of public open space or not. 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 Facade around the Path that is Passed by Public Transportation in San Francisco

No	Building Facade	Facade Characteristics
1.		<p><b>Bayview Park</b></p> <ul style="list-style-type: none"> <li>• The facade is oriented towards the Mini Retro lane</li> <li>• windows, openings and entrance of the building also oriented directly to the Muni Retro lane</li> </ul>

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

Judging from Table 3, a conclusion can be drawn that the architectural component of buildings in the surrounding area is not affected by noise due to activities on the streets and places traversed by public transportation. In the city of San Francisco, the people are likely to apply windows and openings by utilizing the existing space, such as the appearance and natural ventilation of green open space, but on the other hand there are also noisy streets and activities around open spaces that are also closed to or traversed by public transportation. On the other hand, an area located close to a public open space certainly has its own spatial pattern character, based on the location of the area, existing conditions, and the influence of the area development plan. When it goes further, the architecture of buildings in an area that is close to the public open spaces, and located near the public transportation access, or even traversed by it, the building will be processed using a further analysis.

### 3.3 The Impact Of Social Change Due To The Existence Of Public Open Space




Cities were invented to facilitate exchange such as ideas, friendships, material goods and skills. A city will be known as a good city when it comes to how the city is facilitating exchange, because it determines the city's health on economic, social, cultural and environmental. Public space forms a vital conduit in this exchange process, providing platforms for everyday 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. Public open spaces also allow communities to have social activities such as gathering, hold an exhibition, a fair, etc. Seeing through that perspective, architects improve their design method to adjust the way they plan the building, the orientations, the openings towards the environment. It happens with the existence of the public open space nearby, the considerations of building something within the area are getting more value than usual in things such as façade, scenery, noise, and air circulation.

As in the case of the Bayview Park, the orientation of the building is applied directly facing the Muni Retro path where the distance is not too far from the front of the building. It is because residents feel they will not be disturbed by outside activities, because the green space in this area is not a tourist attraction, it is an open space that is built for Bayview residents. However, the beauty of the Bayview Park made it become one of the tourist destinations in San Francisco.

The other consideration is that the noise level of Muni Retro is relatively low for public transportation such as trains. This is because Muni Retro does not carry large numbers of passengers and does not travel at high speeds like BART. In Alta Plaza, public transportation that traversed the area is a city bus, where the noise level is also fairly low, almost the same as car noise in general. At Balboa Park, one of the park areas is adjacent to the BART lane which is public transportation in the form of a train that can carry passengers with large capacity and high speed. Settlements in the area still apply openings and windows in the rear area because the BART train crosses the area at a land elevation that is quite far

lower than the elevation of the standing residential building so that the direction of its noise distribution does not directly affect the building.

Table 4. Selected Area of Space Organizing in San Francisco

Union Square Area	Mission Dolores Area	Bayview Area
<p>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</p> 	<p>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.</p> 	<p>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</p> 

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. It is from these grid patterns that 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 the city of 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. The arrangement of urban areas in San Francisco also tends to follow existing spaces, which are considered to have great potential as public open spaces that can be utilized as a union of city spaces. Many of the buildings around public open spaces are oriented directly to the area of public open space in order to improve the regional economy, as well as the independence of the public open space in the care of the region.

The community also utilizes these open public space for their daily activities. They may take their time to use it, because they need the space to escape from hectic routines, where employees have to work from time to time. Thus, public open space can benefit everyone, not only San Francisco's residents, but also people who work in this city, and tourists who come to have a vacation. With the existence of public open space and green open space, the people with a variety of busyness, affairs, come from many places, can interact in the same space, sharing their thoughts, and having memories together.

**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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