RE-DISCOVERING THE LOST TRADITIONAL PUBLIC SPACE: THE CASE STUDY OF TAHRIR SQUARE (SANA'A) أعادة اكتشاف الفراغ التقليدي العام المفقود: دراسة حالة ميدان التحرير (صنعاء)

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الملخص:

يعني هذا البحث بالتعريف النظري بانواع الفراغات في المدينة. وتطرق إلى تعريف الفراغ المفقود. واعتبر البحث ان الفراغ الذي تسود فيه حركة الآليات ومواقف السيارات على حساب نشاط وحركة المشاة فراغا مفقودا. تناول البحث ميدان التحرير (صنعاء اليمن) كحالة دراسية. وعرض البحث أربع مراحل لنمو ميدان التحرير منذ ١٩٦٢ وحتى الآن. من مرحلة الفراغ التقليدي الذي ساد فيه نشاط وحركة الإنسان إلى الفراغ المفقود الذي سيطرت عليه حركة الآليات ومواقف السيارات.

عرض البحث نتائج المسح الميداني واستعمالات الأراضي للميدان. وتبين إن الميدان فقد أهميته كمركز للمدينة. تكمن أهمية هذا البحث بالاعتناء بإعادة تأهيل الفراغات التاريخية حتى لا تتدهور وتتحول الى فراغات مفقودة.

ABSTRACT

City planners are faced with challenges of creating outdoor environments as collective unifying frame work for new development. The usual process of urban development treats buildings as isolated objects sited in the landscape not as part of the larger fabric of the city.

Each element is the responsibility of a different public or private organization and unity of the total environment is lost. Various development projects as in the case of Tahrer Square (TS) are by and large put together separately with out on overriding plan for public space. The result is ill-defined spaces or to say lost spaces. These spaces are patchwork quilt of private buildings and public spaces usually severed from a historical context.

To shed light upon the problem of lost space, this paper takes (TS) in Sana'a city as a case study. It investigates (TS) urban development phases. It also presents (TS) existing physical setting. The utility of the study lies in the formulation of revitalization policy for the urban historical centers.

Key words: Public space, lost space, revitalization, Sana'a, Yemen

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1. INTRODUCTION

Public space has been well discussed in developed countries[1], [2], [3] Public space in European historic cities has also been covered by researchers in detail[4]. However, historical public spaces in Muslim cities have undergone different changes with challenges from population pressure and fabric deterioration. Many recent studies have highlighted the development of urban spaces in Muslim cities (see for example [5], [6], [7], [8].

Review of this literature reveals that cities rarely stay the same. They grow or shrink, and improve or deteriorate. These changes do not happen randomly. They are the result of systematic processes occurring over a length of time. This process is best studied by regarding the urban development of the city as a system of physical, social economic components that are interrelated [9].

According to Awad[10] moreover, main Muslim cities witness two major of urban transformation. First is the decline of old urban center forms and evolution of new sub-centers. Second is the on going decay of the urban centers coupled with overall deterioration. Nasher [11] also stated that in the major Muslim cities there is unbalanced relation between the size of rapid growth of the urban mass and the size of the city center.

However, in today's city planners are faced with challenges of creating outdoor environments as collective unifying frame work for new development. The usual process of urban development treats buildings as isolated objects sited in the landscape not as part of the larger fabric of the city. Decisions about growth patterns are made from two dimensional landuse plans, without considering the three-dimensional relationships between buildings and space and without a real understanding of human behavior. Urban space is seldom ever thought of as an exterior volume with properties of shape and scale and with connections to other spaces.

Therefore what emerges in most environmental settings today is unshaped, abandoned and different degrees of decay. Elements ageing of the built-up components are one principal reason that results in down grade for some old building

and directly impacts the quality of environment. Traffic congestion, business repositioning, building obsolescence, and malfunctioning are all the symptoms of the city center decay at both levels of buildings and urban utilities[12].

In this context the focus of this paper is to examine the case of Tahrir Square. It is the old historical center of Sana'a city. It has amount of spaces around its historical square (Tahrir Square). TS is also a focal point for public and commercial services. It used to be the pivot point where the old city of Sana'a (Eastern part) and Bir Al-Azab (Western part) quarter meet. However, the traffic volume of the main northsouth thoroughfare to the airport makes it difficult for pedestrians traveling from the west wing to the old city. In addition an iron fence in the middle of the carriage-way blocks any possible pedestrian passage. As a result Sana'a al-Qadima and Bir-alAzab, once part of each other, are now cut. The two wings used to come together in Tahrir Square, which has been devoid of its symbolic value and is presently used as a parking lot (Figure 1).

Figure (1): Tahrir Square as a Parking Lot



An underpass was built to connect Bab as-Sabah Street with the north-eastern corner of (TS). People, however still prefer to cross on the surface without any device to slow down the traffic. This creates a hazardous situation. In addition, since (TS) is the lowest point in the area, the seasonal floods fill the underpass with water. The thoroughfare street, the underpass and the visual impact of the sidewalk fences all together emphasize the segregation between the two wings of the old city coming together in Tahrir Square.

The research therefore, is divided into four parts. The first part is a definition of the lost space. The second part is a historical background of the

urban development of Tahrir Square. The third part presents the field work of the physical settings of Tahrir Square. Some conclusions and recommendations are drawn in the final part.

2. DEFINING LOST SPACE

Saarinen [13] asked what is architecture? Is it the mere building? The real answer he argued that architecture is the art of space in space. More over he stated that our towns and cities have become filled with self-sufficient small, medium and large buildings. Streets have become bordered and framed by buildings in the most unbelievable variety. More spaces have been enclosed. However, much more has been left out as isolated or to say lost spaces.

Lost space or placelessness was identified by Mahyar [14] as a hollow-minded space that affords superficial experiences, evokes no meanings and possesses fake identities.

Trancik [15] in addition identified the lost space as following:

- The disconnected spaces from the flow of pedestrian activity in the city.
- The surface parking lots that invaded the urban core of our cities.
- The residual areas between districts and loosely composed commercial strips emerge without anyone realizing them.
- The deteriorated parks no body cares about maintaining much less using them.
- The urban areas that are in need of redesign. They are ill-defined without measurable boundaries and fail to connect.

Comparing the traditional and the current uses of public spaces as shown in Figure (2)

Figure (2): Different Types of Spaces



Traditional space



Invaded space



Abandoned space



Re-conquered space

Source: [16]

Jan Gehl & Gemsoe [16] furthermore, identified four different types of spaces. These were as following:

- The traditional space- where meeting place, market place and traffic continue to co-exist in public spaces.
- The invaded space- where a single use usually car traffic, has dominated the public spaces at the expenses of the other uses.
- The abandoned space- where public space and public life has disappeared.
- The re-conquered space- where strong efforts are being to find a new workable balance between the uses of the city as

meeting place market place and traffic space.

Consequently, invaded and abandoned spaces by definition are considered lost spaces.

Generally speaking Tahrir Square, therefore offers tremendous opportunities for urban redevelopment and re-discovering the many hidden resources in the traditional center of Sana'a city.

3. TAHRIR SQUAREURBAN DEVELOPMENT (HISTORICAL BACKGROUND)

Tahrir Square (TS) has witnessed several stages which caused a set of urban changes and transformations. These can be divided into four basic phases as following:

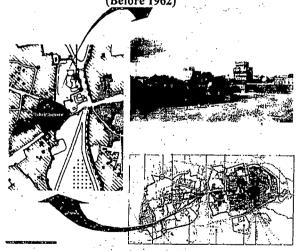
- The first phase before 1962.
- The second phase 1962-1978.
- The third phase 1978-1990.
- The fourth phase 1990-present.

3.1 THE FIRST PHASE (BEFORE 1962)

Sana'a up to 1962 was left to grow automatically, accordance with the need of the community without predeterminations.

The planning of the city depended basically on the quarter system with an organized way[17]. This system was followed in the old city (east wing) and in Bir Al-Azab (west wing).

Figure (3) Tahrir Square in the First Phase (Before 1962)



Source:[19]

When the eastern part of the old city exceeded its boundaries, the tendencies of growth and expansion began to appear outside the walls towards the west in nearby areas. This led to new housing zones. These were Bir Al-Azab and Ka,a Al-yahoud. The west wing of the old city was established in area surrounded with agricultural land. Bir Al-azab, remained housing zones for the well off people. There was no need to establish a new Souk in Bir al-Azab. That was because people were sufficient with service offered by the traditional Souk in the old city. [18].

In this period a vacant place between the two wings was formed. The irregular shape which was called later Tahrir Squarer remained in this form till 1662 (See Figure 3).

3.2 THE SECOND PHASE (1962-1978)

The period between 1962 and 1978 is considered an important phase, and a turning point in the field of city planning.

With the 26th Sep. Revolution in 1962 political, economic, cultural and planning changes were occurred. These changes affected the system of planning. The expansion outside the walls of the old city on the account of the agricultural functions was the distinctive feature of this period. Destructing of some walls of the old city, creating new straight streets and new construction styles especially with the start of introduction of concrete buildings and asphalted streets were the main feature of this period.

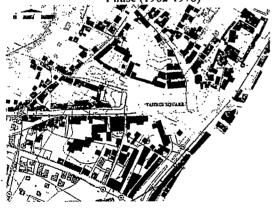
The 26th Sep. Revolution brought with it a republican regime, which gave Sana'a great importance. This importance was enhanced by re-calling Sana'a as the capital of the state. The construction expansion outside the walls was caused by internal immigration. The result was that expansion outside the walls, and several parts of the walls, which used to surround Sana'a were demolished. The construction advance was in all directions on agricultural lands and the nearby graveyards.

During the period 1962-1978 important planning developments took place in Sana'a especially in the period which followed the revolution. Straight streets were established and paved with asphalt. For this purpose the old buildings which stood as obstacles before straightening the streets were demolished. The project of Tahrir

Square and Abdolmoghni streets were considered some of the important projects, which established in 1967. They became a trading area with the function of a modern regional center. Other projects also were established, such as 26th Sep. and Jamal streets. The former streets were primitive roads leading from Bir AL-AZB and became one of the important trading roads. The houses on both sides of the roads were changed into shops.

The civil war, which took place after the revolution and ended at the sixties caused changes. The great change was demolishing Bab Al-Sabh in 1966. That was to expand the public space Tahrir Square. This change was followed by establishing two new arms of shopping streets, which in turn made the Tahrir region the main trading and shopping center of the city. In addition, many trading and governmental buildings were built to the south of Kuzaima gate. All these contributed to Tahrir Square being an important commercial center. As a result, another axial artery from the north to the south called Abdolmoghney was established. Besides, another axis from the east to the west called Al-Zubairy street was also established in the same period. This axis leads to AL-Hodeidah Road.

Figure (4): Tahrir Square in the Second Phase (1962-1978)



Source: [20]

During the Civil war the Republic established the first ring road outside the walls of the city to the south of Bab Al-Yemen and to the north of Bab Shuab. After the war in 1969, Sana'a was expanded considerably and quickly in the western direction of the old boundaries. Tahrir Square didn't witness any radical changes of

those developments (See Figure 4). There were simple and insignificant changes to the square.

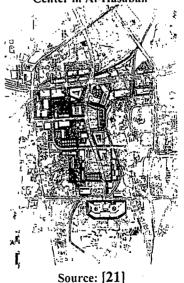
3.3 THE THIRD PHASE (1978-1990)

The beginning of this period (1978) is marked by first physical planning for Sana'a city. In this period a new ministry was established called "Ministry of Municipalities and Housing". The new ministry had different departments, one of which was the department of physical planning. This ministry succeeded the former ministry, which was called "The Ministry of Municipalities and Villages" (Al-Waraqi2001).

Due to the construction expansion result from the different factors such as the concentration of business activities in the capital, the city expanded in different directions resulting into growing the city and increasing its size. For this regard Berger/Kampsax [21] estimated its area in 1978 as 22Km2. The city had expanded in different directions taking the form of arms parallel to the arteries and the territorial roads. All those arteries and roads came out from the center of the city and the new center Tahrir Square.

Due to urban growth and expansion of the city in all directions, the physical planning of the city was prepared. A long-term growth strategy for 20 years was also presented.

Figure (5): Berger's proposal for a New City Center in Al-Hasabah

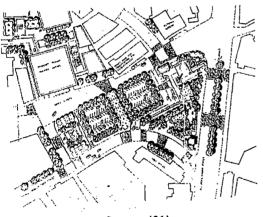


For establishing a new center to the city, Berger/Kampsax (1978) has proposed a new center, which will replace Tahrir Square in the north at Al-Hasaba zone (Ministry of Supply and the surrounding area). He assigned 200 hectares. Constituted 2% of the area urban mass of the city's Physical Planning. This was considered an alternative C.B.D (Commercial and Business District). It involved a set of recreational and commercial activities, and some ministerial and governmental offices along with a transport station (See Figure 5).

Unfortunately Berger's center didn't achieve any success due to the wrong choice of the suitable place. The proposal didn't take into consideration the geographical nor engineering gravity of the urban mass and its extensions.

As shown in Figure (6) Berger/Kampsax [21] concept focused on the circulation issue in TS. The proposal considered the shortage in car parking was the main cause for the problems in TS. It also proposed site beautification and enhancement. It assigned for this purpose green areas around the hard surface of parking lots. However, Berger's concept to develop TS was not implemented.

Figure (6): Tahrir Square (Berger proposal



Source: [21]

Instead other attempts to develop TS came to existence and were more urban-design-oriented than urban planning-oriented. The attempts were as follows:

In early 80s an attempt was made to improve TS. The out come of this was the implementation of revolutionary monument.

In mid 1980s, two proposals were presented by Ministry of Municipalities and Housing. The main concept of these two proposals was to enhance the site with fountain on the eastern side

and celebration plaza on the western side. In between, the site was devoted for car parking.

Unfortunately the project was not used to cope with the purpose it was established for as an environmental project. In its current situation it became an additional burden on the environment. It became rather as a hard surface open space used for different purposes. It is used for auto-machine traffic, temporary and permanent parking, pedestrians circulation, peddlers, beggars and hawkers. Besides, it became a place for these people taking naps in the afternoon or a place for chewing qat.

3.4 THE FOURTH PHASE (1990-PRESENT)

The economic, social, and political transformations after the reunification led to pressure on Sana'a for being the political capital of the united country. The return of immigrants during the second Gulf war had an effect on the urban planning as well.

The greater of Sana'a city was divided into nine blocks by the planners and became a sprawling city. It witnessed an extensive construction expansion. This led to quick and random growth of the city.

As for the situation of Tahrir Square in this phase it becomes a refuge for many returnees and unemployed, and becomes a cultural and social park in which a great group of this community practices a lot of activities as peddlers and beggars.

In 1998 a project of renewing the general physical of Sana'a city was conducted by Cubans team with the support of the Department of Physical Planning in the Ministry of Public Works.

The new downtown was proposed by Cubans team [22] to be in Taiz street and 50 street as shown in Figure (7). As a result of the proposal, Shumaila Suok comes into existence. This souk involves a set of the trading markets owned by the private sector. It is built of simple materials with no existence for the governmental offices, or parks or any of the kind.

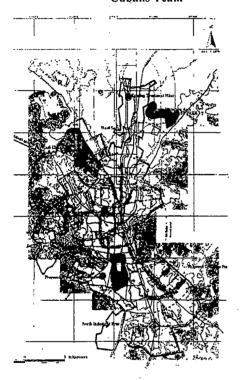
As for the position of TS, it remained as it is. It wasn't included in the studies prepared by the Cubans planners. In fact, no attention was made

for the current situation of TS as a withstanding center.

No other planning attempted for developing and improving TS as those proposed in 1980s (the third phase).

Therefore, TS remained as it is, except for minor improvements every now and then. The main attempt was the idea of linking the pedestrian movements between the activities of old city passing by Bab AL-Sabah and leading to TS. For this purpose, an under pass was built.

Figure (7): The new Downtown proposed by Cubans Team



Source: [20]

To conclude, there is no development vision of regional centers of Sana'a city in general, and of TS in particular.

In spite of the unsuccessful attempts exerted by international consultants to locate Sana'a city C.B.D. and professionals and decision makers to catalyze the activities taking place in TS, the situation of TS will remain as it is unless the urban fabric of the whole site and not only TS is studied. The study should be a comprehensive urban planning one. Tahrir Square should be part of a complete urban project, further it should be studied with in the general urban planning

proposed for 20 years, it should not be a temporary or partial solution as it is often thought.

The legitimacy of this study, however, is that many cities undertaking the development process do not have comprehensive plans or zoning ordinances, a future role which the space development plan can play in a comprehensive plan's formulation or revision, is to become an equal part of that plan.

4. PHYSICAL SETTINGS

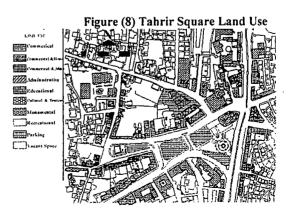
4.1 LAND USE

A full survey was conducted on the study catchment area with the focus on the land use in the built up area and the open space. The buildings surrounding the square and buildings situated on the main axes as illustrated in Figure (8) were thoroughly inventoried. The land use in open space includes recreational and monumental spaces, parking and roads, and undeveloped vacant land.

Table (1) indicates that the area of land use in the built-up zone is 33,771 m2. This area represents 44% of the study area, whereas the area of the open space is (42,747 m2). This percentage is 56% of the site area.

Table (1) Land use in built up area and open space

Land use	Area (m2)	Percentage %
Built up land use	33771	44%
Open space land Use	42747	56%
Site area	76.518	100%



4.1.1 LAND USE IN BUILT-UP AREA

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TS characterized by diversity of land use. These are summarized in the Table (2)

Table (2): Land Use in Built Up Area

Built up Land use	Area (m2)	Percentage %
Commercial	3680	11
Commercial & Housing	2880	9
Commercial & Administrative* /professional services	8211	24
Administrative**	10280	30
Cultural & Tourism	7040	21
Educational	1680	5
Total	33771	100%

^{*} Non-public oriented

Building conditions survey also, shows that,

- 50% of the study area is one-two storey buildings, which contribute negatively to the quality of the TS enclosure. Most of these buildings are located in Jamal street and the area adjacent to Jamal Jameel school.
- Most of the bad and medium condition buildings and height percentage of low high buildings are concentrated in Jamal street and Jamal Jameel school street.
- 50% of the study area is one-two storey buildings, which contribute negatively to the quality of the TS enclosure. Most of these buildings are located in Jamal street and the area adjacent to Jamal Jameel school.
- Most of the bad and medium condition buildings and height percentage of low high buildings are concentrated in Jamal street and Jamal Jameel school street.
- Buildings which require very advanced stage of beautification represents 40% of the buildings assets in the study area. Nevertheless, the historical buildings which require initial stage of preservation or no appreciable preservation resemble 29% of the historic resources in TS.

4.1.1.1 COMMERCIAL CAPACITY

The current commercial capacity in the TS area is examined in terms of the minimum commercial facility proposed by Urban Land Institute (ULI) guidelines Table (3)

Table (3):Commerc	cial facilities	guidelines
	Neighbor hood Center	Communit y Center	Regional Center
1. Major function	Sale of convenien ce goods and personal services	Some functions of the neighborhoo d center plus sale of shopping goods (wearing apparel. appliances, etc.)	Some functions of community center plus sale of general merchandise. apparel. furniture. etc.
2. Leading tenants	Super market and drugstore	Variety store and small dept. store	One or more large, major dept. stores
3. Location	Intersection of collector streets a/c secondary roads	Intersection of major roads and/or expressways	Intersections of expressways and / or freeways
4: Radius of service area	½ mile	2 miles	4 miles
5. Min. population to support center	4.000	35.000	150.000
6. Site area (gross land area)	4.8 acres (19.425 m ²)	10-30 acres (40,469- 121,407 m ²)	40-100 acres and over 121,407 – 40,4690 m ²)
7. Desirable maximum size of center as percentag e of total area	1.25% (1 acres / 1,000 pop)	1.00 % (0.75 acres / 1.000 pop)	0.50 % (0.67 acres / 1,000pop.)
8: Ranges of Gross Floor Area	30.000- 75.000 sq. ft. (2.700- 6.750 m ²)	100.000- 250.000 sq. ft. (9.000 – 22,500 m²)	400.000 – 1.000.000 sq. ft. (36.000 – 90.000 m ²)
9. Number of stores and shops	5-20	15 - 40	40 – 80
10. Parking requireme nts	gross floor building: 400 sq. ft. space 200 1,000 – 3,0	ea is four times area of per parking - 600 space	

^{**} Public oriented

4.1.1.1.2 COMMERCIAL USE IN TS

The current commercial activities in TS were examined. TS pattern of existing commercial use defines three major retail locations each with its own special character:

- Abdul-Moghney street, heart of TS retail and commercial activity.
- Jamal street with its specialty retail orientation.
- Jamal Jameel street, the stationary and student services oriented.

The available commercial services in the three areas were inventoried.

The listing of services in the study area does not try to address the issue of quality, as it is beyond the limits of this study. Based on TS commercial site data Table (4) addresses, however the site's commercial capacity.

Table (4): TS Commercial Site Data

Built-Up Area(M2)	No. of stores**	Floor area (M2)
33,771	191	14,771

**Average= 77m2/store

To conclude and by using ULI guidelines shown in Table (3), TS would be classed as community center. That is because:

- Its major sale is primarily on the neighborhood scale.
- The majority of its shops sell convenience goods and personal services.
- It doesn't have department stores.

The site area is within the limits of the minimum size of community center proposed by ULI, yet the number of the stores and shops is more than 80 stores.

Another way to look at the existing shopping area is by floor area. Simple examination of the floor areas of TS commercial site, it is comfortably to conclude that TS is considered as a community center. In 1978, Tahreer Square was considered modern regional center (See section 3.2).

4.1.2 LAND USE IN OPEN SPACES

4.1.2.1 OPEN SPACES

Built up land use survey indicated that TS has diverse and concentrated mix of land uses and

activities. These activities are critical in drawing people to TS to create a lively atmosphere and profitable business setting. If the built up land uses are linked together by streets and open spaces which accommodate and encourage pedestrian movement, the activity generated by one use will provide support for others and TS open space life will act as a magnet which draws more people.

Table (6): Land Use in Open Space

		Percentage
Open space Land use	Area (m2)	%
Monumental	1320	3
Recreational	4595	10
Parking	8170	19
Roads & Circulation	13300	32
Vacant land	15362	36
Total	42747	100

Nevertheless, TS open space, as indicated in Table (6) is an auto-machine oriented open space, as parking and circulation in TS represents 51% of the land use in open space. The study also reported that the parking surface lots, which are deserted in afternoons, are used as football playground.

Undeveloped not publicly accessed vacant land percentage is 36%, whereas the human oriented activities are marginalized. Recreational and monumental, which are considered as publicly accessible open spaces constitute only 13 % of TS open space. Furthermore, there are no decent spaces for people to relax or interact and socialize. Most of these places are used by unemployed, beggars and hawkers.

In fact, these public spaces play an important role in structuring the "image of the city". The existing hard surface of TS, and lack of proper publicly accessed open spaces however, are the character of TS. The existing land marks (monument and fountain) are suppose to be focal points and punctuating the urban fabric and provide relief to the hard surfaces of the built environment. They also could have created opportunities for social interaction, and could have added substantially to the vitality of TS

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open space life.

4.1.2.3 VACANT LAND

The presence of a vacant land publicly owned, which represents 36% of the no built space, within TS area creates the opportunity to plan for future development. These locations have been vacant for along time, resulting in a low occupancy rate for commercial and business establishments. These areas offer great potentials for development.

5. CONCLUSIONS AND RECOMMENDATIONS

The overall physical settings conclusions reached are as following:

5.1. BUILT-UP AREA

- TS might lose its balance of land uses and be transformed into a community
- If nonpublic government oriented offices don't move out of the site, its streets and parking capacity will be stressed by peak commuter needs. Its pedestrian orientation might be compromised by the future construction of bulky, large scale buildings.
- The historic assets distinguish TS from other shopping and business centers. There are many formal and informal cultural activities.
- These altogether are enhancing TS identity as a cultural center of the city and the region.
- 50% of the study area is one-two storey buildings, which contribute negatively to the quality of the TS enclosure. Most of these buildings are located in Jamal street and the area adjacent to Jamal Jameel school.
- Most of the bad and medium condition buildings and height percentage of low high buildings are concentrated in Jamal street and Jamal Jameel school street.
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Buildings which require very advanced stage of beautification represents 40% of the buildings assets in the study area. Nevertheless, the historical buildings which require initial stage of preservation or no appreciable preservation resemble 29% of the historic resources in TS.

5.2. OPEN SPACE LAND USE

- TS open space is vehicle oriented open space, as parking and circulation in TS represent 51% of the land use in open space.
- Undeveloped not publicly accessed vacant land represents only 36%, whereas the human oriented activities are marginalized. Recreational and monumental, which is considered as publicly accessed open space constitute only 13% of TS open space. Furthermore, there are no dedicated spaces for people to relax or interact and socialize. Most of these places are used by unemployed, beggars and hawkers.

5.3 RECOMMENDATIONS

The following are recommendations for the built up area and open space land use. Action Strategies have been recommended as the basis for developing a detailed implementation program.

<u>5.3.1 BUILT UP AREA</u>

- Undertake a market study of TS commercial potentials, jointly funded by public and private sectors, actively pursue study recommendations.
- Encourage a balanced mix of TS cultural, administrative uses to build market support for TS commercial use.
- Reuse underutilized historical buildings.
- Encourage cultural and tourism-oriented uses to locate downtown.
- Continue to encourage special events programming.

- Avoid the physical separation between the public space and the sidewalk so that people are invited to enter.
- Ensure that active uses especially soft drinks and food services are located with in or on the edges of the space to create the lively atmosphere which draws people.
- Special events programs (for example, performers or changing displays) can also help to ensure that TS public spaces are used to maximum advantage.
- Provide a choice of sun or shade in outdoor areas, maximum natural light and ample decent seating which provides a choice in how people relate to each other.
- Design public spaces to accommodate a variety of activities, avoid the use of large fixed elements which dictate specific use patterns.
- Encourage the preservation, renovation and reuse of the historical buildings.
- Promote compatibility in the design of new buildings located nearby.

5.3.2 OPEN SPACE LAND USE

- Maintain lower traffic volume to protect the pedestrian flow from the Eastern and Western parts of the city.
- Discourage operational changes which increase traffic volumes and speeds on these streets by the quality of the walking environment.
- Reduce future increases in transit traffic by studying commuter behavior.
- Define current and future parking needs.
- Strict control on surface parking, and encourage the construction of underground vehicular pass way and structural parking.
- Allocate public parking more effectively, giving higher priority to short-term parking in those areas most convenient for commercial activities.
- Adopt guidelines for new development and rehabilitation projects on pedestrian, vehicular, and shared streets.

 Adopt a consistent hierarchy of sidewalks and streetscape design standards.

6. REFERENCES

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