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Strategies to Changing Patterns of Land Use in a Worn Area Located at Central Business District of City, Case Study: Sabzevar City, Iran

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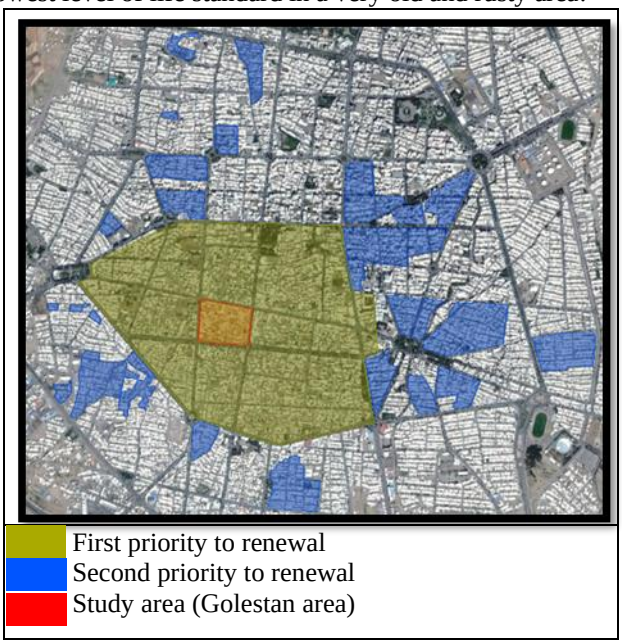
Abstract*— the worn and inefficient tissues make up a significant part of Sabzevar city. On the one hand, These tissues suffer from a wide range of physical, functional and environmental problems and on the other hand, those are city`s most important potential for utilizing land for providing services space, create mobility infrastructure and environmental improvements. Golestan area is one of the oldest neighborhoods in the city, which form the initial core of the city and has an organic form. This neighborhood faces physical problems such as passage ways with low width, poor road networks, the existence of old habitats, low durability and compressed structure, poor quality of building materials and lack of facilities and equipment required. In this paper, Preliminary knowledge of the old city texture and physical aspects of Golestan area will be reviewed.

Index Terms*— Worn Texture, Land Use, Central Business District, Sabzevar City.

I. INTRODUCTION

Sabzevar city after Mashhad (province capital), ranked second in the worn out texture in province. With the growth of cities, their central and old textures become worn out texture. Therefore, the need to reconstruct and modernize these tissues in terms of the safety and strength of the building, the beautification and the desirable urban landscape is inevitable. Over 186 hectares of worn texture are located in many parts of the city, especially central part of Sabzevar city which is absolutely worn out texture.

The worn-out tissues of Sabzevar city are scattered in different part of city. Each zone has its own physical, economic, social and cultural characteristics. Hence, the interventional approach to the reconstruction and renovation of these tissues varies according to their local characteristics. Some of the slums of the CBD have the ethnic minority (Ghorbatha) groups which are generally Itinerant migrants. Their ethnic, cultural characteristics and particular dialect from one side, and people`s negative and discriminatory attitudes toward them from the other side, Despite their hard work and creativity in the manufacturing of tools and crafts, the city has entirely separated this community from rest of the society. These people live with the minimum facilities and lowest level of life standard in a very old and rusty area.



Source: Municipality Renewal Organization

II. GOLESTAN AREA:

The area of this neighborhood is 83082.83 sqm, 4% of Sabzevar's worn texture. According to unofficial statistics, more than 3,000 people live in this area. Lack of sewage collection network, Health status and Non-standard and worn out buildings are most important serious problems and Forging, woodworking, crafts, dyeing and knitting are important jobs in this neighborhood. Residents in Golestan area are the very low-income groups. So that they cannot shift their homes to other places and not even the ability to rebuild their homes.

Golestan area is one of urban decay neighborhoods in the city of Sabzevar. It is located at the central part of city. More than 50% of the residents of this neighborhood are facing a lot of health problems. According to renewal organization announcement, Golestan area is absolutely urban decay and does not have any resistance against earthquakes.

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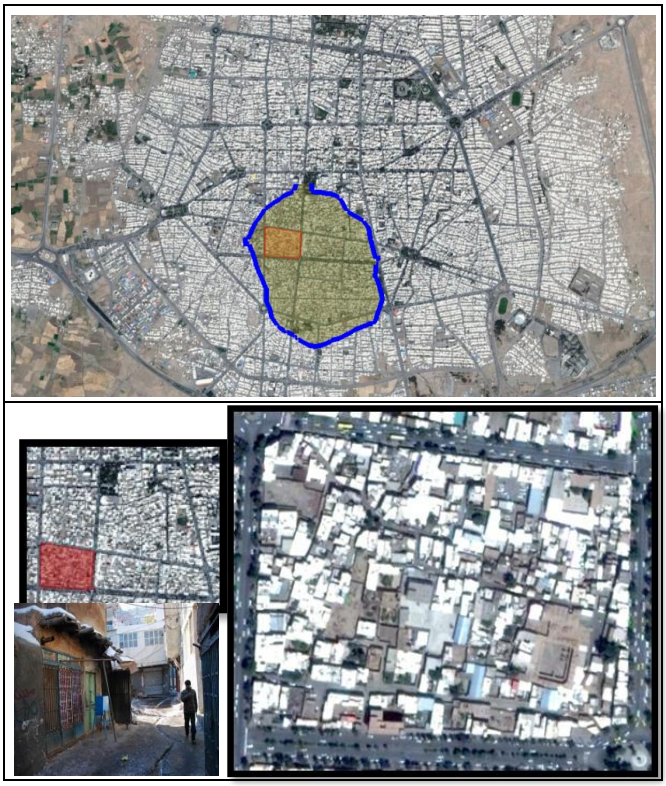

Figure 2: Golestan Area Location at the Initial Core of Sabzevar City

III. LAND USE

Commercial units have been deployed in specific areas and generally located in the eastern half. Commercial is major share in Golestan area. It is around 29.47 percent of outer edge or adjacent to main streets or at eastern region of neighborhood. The old people of Golestan area are Industrialist. For this purpose, they have created manufacturing workshops inside the area to produce agricultural tools. Most land Use Owned to residential particularly in western half. Other options have small share of the land use, especially green space and sport.

Figure 3: Golestan Area Land Use

Table 1: Golestan Land Use, 2010

Land Use	Number	Percent of the Number	Average Area (Sq.m)	Total Area (Sq.m)	Percentage of area
Residential	199	29.18	139.41	27742.19	46.59
Commercial	201	29.47	30	6029.03	10.13
Residential-Commercial	89	13.05	38.63	4338.21	5.77
Administrative	5	0.75	78.77	393.85	0.66
Sanitary	1	0.15	674.57	674.57	1.13
Therapeutic	3	0.44	211.95	635.86	1.07
Educational	2	0.30	2724.06	2724.06	4.57
Sport	1	0.15	405.84	405.84	0.68

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Inactive commercial	22	3.23	20.8	457.52	0.77
Total	682	100	-	59543.67	100
Roads Network	-	-	-	23539.16	-
Total Area	-	-	-	**83082.83**	-

Source: Sabzevar Municipality Archive

IV. PHYSICAL STRUCTURE

Physical structure of Golestan area is includes commercial and residential buildings. At the following Important indicators of physical structure includes building age, material and floors have been reviewed.

- **Building Floors:**

In Golestan texture, most of buildings are two floors. Except for 1 item, four-floor building and more is not visible. So there is Uniformity and non-diversification in the sky line.

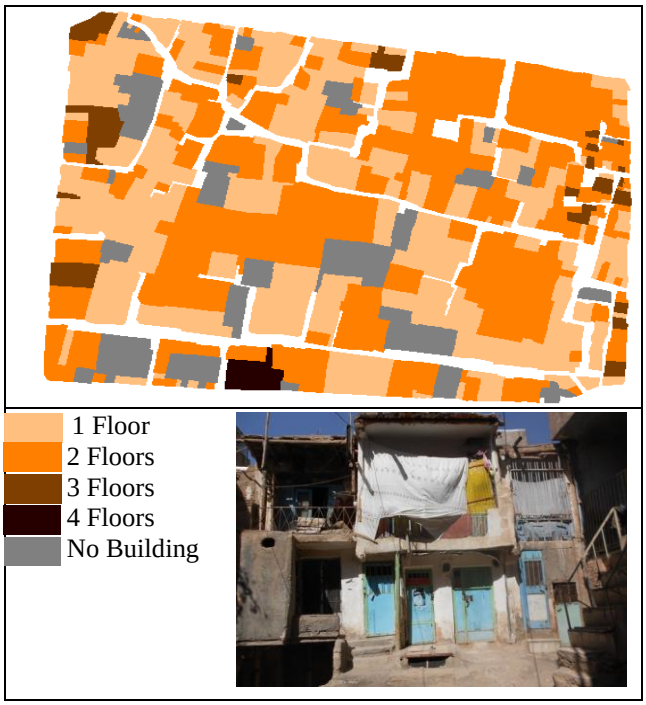

Figure 4: Building Floors in Golestan (As Slum) Area

Culture	1	0.15	361.31	0.61								
Religious	7	1.03	148.12	361.31	1.74							
Installations and	2	0.29	45.85	91.70	0.15							
Storehouse	43	6.3	101.25	4353.96	7.31							
Army	1	0.15	15.58	15.58	0.03							
Parking	1	0.15	635.06	635.06	1.07							
Productive and	62	9.09	21.15	1311.16	2.2							
Green Space	2	0.30	126.64	126.64	0.21							
Ruined place	14	2.05	173.84	2433.77	4.09							
Abandoned	2	0.29	1322.77	2645.55	4.44							
Vacant land	20	2.93	179.54	3590.79	6.03							
Under Constructio	4	0.59	110.05	440.19	0.74							

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Table 2: Building Floors in Golestan Area

Floors	Number	Percent of the Number	Average Area (Sq.m)	Total Area (Sq.m)	Percentage of area
No Building	39	5.72	163.84	6389.77	10.73
1 Floor	268	39.30	89.38	23954.57	40.23
2 Floors	324	47.51	82.25	26650.15	44.76
3 Floors	50	7.33	41.64	2082.20	3.5
4 Floors	1	0.15	466.97	466.97	0.78
	682	100		59543.67	100

Source: Sabzevar Municipality Archive

- **Building Materials:**

In general, building materials can be examined in this way:

Western half which buildings are generally more new, newer materials and generally metal structures and some of Building are with rocky facades. Compared with eastern half of area, western half has building with better quality. Due to the old texture, buildings in eastern half have inefficient and poor quality materials. The structures of most of these buildings are wood and clay and buildings facades which is in harmony with the building material.

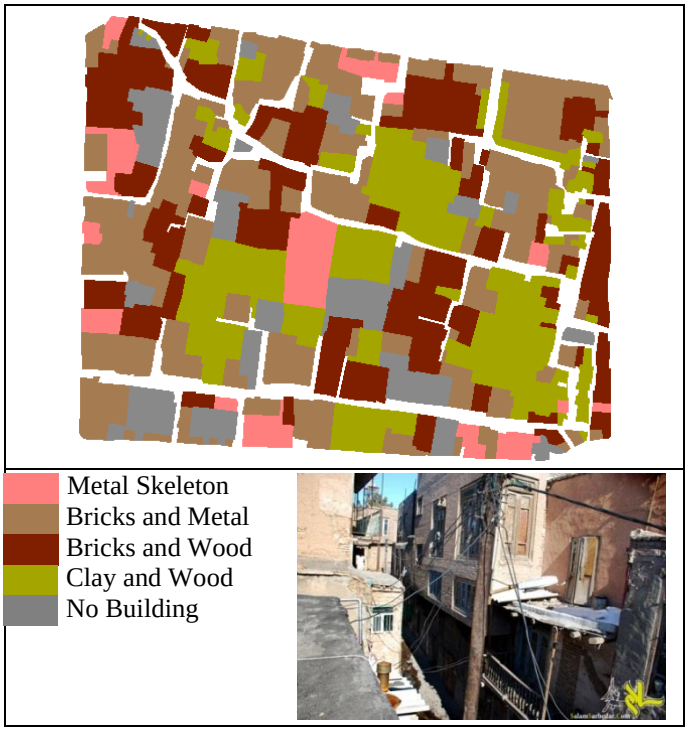

Figure 5: Building Material in Golestan (As Slum) Area

Table 3: Building Material in Golestan Area

Materials	Number	Percent of the Number	Average Area (Sq.m)	Total Area (Sq.m)	Percentage of area
No Building	39	5.72	163.84	6389.77	10.73
Metal Construction	39	5.72	115.45	4502.46	7.56
Bricks and Metal	292	42.82	68.8	20088.42	33.74
Brick and Wood	174	25.51	85.6	14895.09	25.02
Clay and Wood	138	20.23	99.04	13667.92	22.95
	682	100		59543.67	100

Source: Sabzevar Municipality Archive

- **Building Age:**

History is one of the important features of this texture. This indicator includes five groups: 0 to 10 years, 10 to 25 years, 25 to 40 years, more than 40 years and no building. The obtained result show that most of building in Golestan area are more than 40 years old which are around 49 percent. 18 percent of buildings are between 25 to 40 years old, 11 percent are between 10 to 25 years old and 13 percent of them have created during 10 years.

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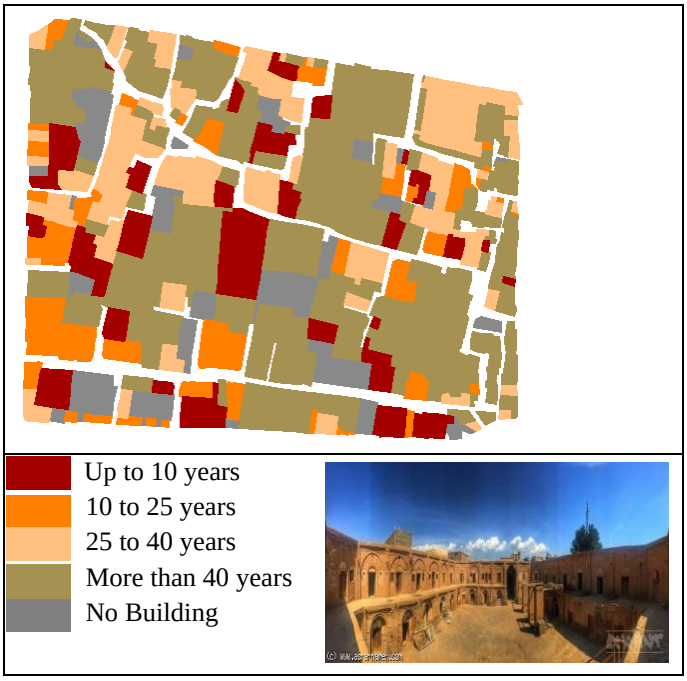

Figure 6: Building Age in Golestan (As Slum) Area

Table 4: Building Age in Golestan Area

Age (Year)	Number	Percent of the Number	Average Area (Sq.m)	Total Area (Sq.m)	Percentage of area
No Building	39	5.72	163.84	6389.77	10.73
Up to 10	61	8.94	122.51	7473.30	12.55
10 to 25	92	13.49	71.20	6550.72	11
25 to 40	159	23.31	66.10	10510.42	17.65
More than 40	331	48.53	86.46	28619.46	48.06
	682	100		59543.67	100

Source: Sabzevar Municipality Archive

V. WEAKNESSES AND THREATS

Table 6: Some Major Problems in Golestan Area

Lack of security in locations far from the commercial points of study area In the alleys of the tissue.	
Lack of proper infrastructure for pedestrian and vehicle access.	
Use of brick and wood or clay and wood materials in texture which is cause to reduce buildings strength.	
buildings in this area are too old.	
Lack of services and facilities on the scale of the neighborhood.	
Concentration and contiguity of tissue components.	
passage ways with low width and poor road networks.	
serious defect on Sewage and Lack of surface water disposal system.	

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VI. OPPORTUNITIES AND STRENGTHS

- Golestan Area, enclosed by commercial units.
- Area located among main and important commercial axises.
- It is close to old market and important historical elements.
- Easy access to Golestan area from the surrounding areas.
- The area is Located at the center of the urban exchanges.
- Influence of commercial units to inside the neighborhood due to specific location.
- Existence of historical places inside the area.

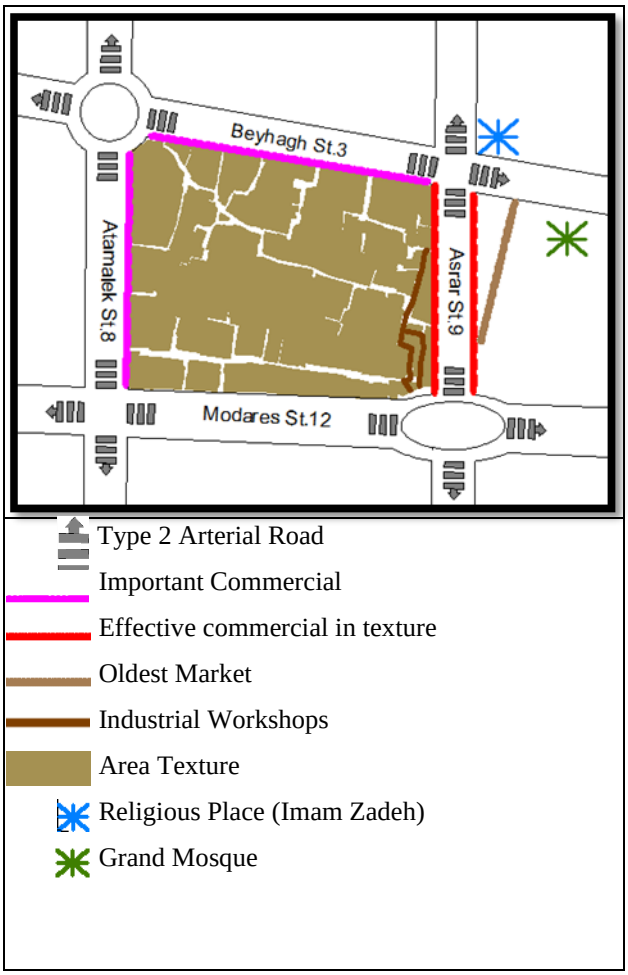

Figure 7: Important Elements around Golestan Area

Beyhagh St.3:

It is one of the main and oldest east-west axes in the urban network. important commercial units, cultural places and other service centers are located in this streets due to which most of the travel originates here, since most of the trips begin from here due to the existence of attractive places of trip yet the width of the passages remain minimal.

Due to existence of most important religious places like Grand Mosque and Imam Zadeh and oldest market at the intersection of Beyhagh Street and Asrar Street, it is one of most important point in city.

Asrar St.9:

Asrar Street is Commercial Street. One of entrance of old market located at this street. It is of most important central streets of city. Golestan area connected to this street by one pedestrian entrance and one vehicle entrance. Commercial units are compact and are located adjacent to each other. The goods supplied are mostly agricultural and construction equipment which some of them are produced by Golestan residents. Lack of appropriate parking facility and existence of side parking are of the reasons to vehicle congestion in this street.

Atamalek St.8:

This street which located at west side of Golestan area is one of central commercial streets. Compared with Asrar Street, density of commercial units and pedestrian is less and administrative places more to be seen.

Modares St.12:

Compared with other streets, in terms of Physical and functional characteristics is less important. Commercial located in this street is limited and only at intersection with Asrar street and Atamalek Street there are significant commercial units.

With regard to the items mentioned, it is suggested for changing land use in Golestan area to recreational-commercial area (specially in eastern half) Of course, with the preservation of historical cultural monuments. with Taking possession of this part, there is appropriate space to create mobility infrastructures. Specific location of Golestan area in city helps to create an efficient and coherent place to establish citizen interactions. in addition, existence of modern area in central part of city based on pedestrian priority which Merged with historical cultural values will has great potential to attracting citizens and in result Boost business in the region.

VII. CONCLUSION:

Due to high residence history, old building material, Inefficiency in internal access networks for pedestrian and vehicle, Health problems and many other issues, Golestan area Considered as old part. Because of eastern half is older, so compared with western half; it has more Priority to reconstruction. Unlike all the problems mentioned, Because of Golestan area located in the heart of city, access to old market, main religious places and other major attractive points, it has great Potential for change land use to recreational-Commercial area based on pedestrian priority (pedestrian area) and also appropriate region to create mobility infrastructures in the central part of city.

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Given the historic history of the neighborhood, Intervention in Golestan requires the implementation of a social and cultural project aimed at preserving its historical texture.

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