

Industrial Heritage in Historical Urban Landscapes

The Role of Sugar Factory in Urban Landscape of Varamin

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Abstract | The Industrial Heritage concept has been used since 1950. That was a new concept but quickly accepted in urban projects. In the developed countries, protection of industrial heritage is a model of developing and a part of the urban landscape. This study tried to explain history of the industrial heritage protection and its importance. For this purpose, we study Nizhny Tagil Charter, The Dublin Principles, Taipei Declaration and Madrid Document. In addition, following-up FICIM, TICCIH, ICOMOS and the International Architects Community are necessary to explain why industrial heritage is important in the landscape of historical cities. The explanation of the position of Varamin Sugar Refinery in the urban landscape was considered in this study. Varamin Sugar Refinery is a monument of Industrialization during 20th century. This building has become a valuable asset in the historical perspective of the Varamin city with unique features including: Prominent architecture, convenient urban location, Environmental and historical-cultural features, and the interest of the urban community in this building. In some of historical cities, which developed in 20th century as Varamin some features such as, buildings, sites, and industrial elements should be considered in urban development policies because they are key parts of urban landscape and industrial heritage. In addition, conservation of industrial heritage not only is important for academic discussions, but also is important for economic features. Revitalization of industrial heritage (especially for cultural uses) can lead to the city's economic and cultural growth, as well as job creation.. In general, Revitalization and Conservation of urban landscape and historic buildings of a city requires a balance between the past situation and present potential. Focus on industrial heritage in the landscape of historical cities is a key part of urban management policies.

Keywords | industrial heritage, Varamin Sugar Refinery, Urban landscape, landscape of historical cities.

Introduction | The industrial revolution has brought widespread changes in the cities. The process of industrialization has affected the shape, nature, as well as urban landscape of cities. The emergence of industries has led to the formation of new spaces inside and outside the cities; today these industrial spaces have historical relationships

with the past of the cities. This historical relationship is observable in various aspects (socio-economic and cultural) of urban life. Historical memory and sense of belonging to the industrial heritage have been institutionalized in the community mind.

Problem statement

The industrial heritage represents a part of architectural and urban history which shows the industrialization aspects of

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today's world (Xie, 2015: 142). The close relationship between industrial heritage and local communities has created a sense of belonging toward their conservation. It goes without saying that the sense of belonging is considered to be the origin of social identity of citizens of a city (Aghabozorg, 2013: 50). In addition, the cultural identity integration of historical-industrial cities depends on the conservation of this valuable heritage. In the countries pioneering in the field of conservation, conserving industrial heritage is considered as one of the development models and part of cultural landscape. Despite their undesirable conditions, post-industrial lands can be considered as development stimulus for their surrounding context on the one hand, and a possibility for modernization of the metropolis on the other hand if they are recycled correctly (Farahmand, 2011: 25). Their conservation is important not only scientifically but also economically. Investing and reusing industrial heritages (especially cultural reuse) can lead to economic and cultural growth as well as the creation of new job opportunities (Florentina-cristina et al, 2014: 163). Generally, conserving urban landscape and its heritages requires the interaction between the previous and inherent values of the work with its contemporary environment in order to restore and reuse them. Understanding the value of industrial heritage in the landscape of historical cities is also part of this process and the integral part of urban management policies.

Research hypothesis

In the light of the above and considering the importance of industrial heritage in the landscape of today's cities, attempts are made to answer the question that whether the presence of post-industrial heritage of sugar refinery affects identity formation of Varamin city and its landscape-related challenges adjustment or not. In addition, we aim to investigate the effective components of the sugar refinery presence to create the association between the northwestern part of Varamin city and its historical landscape context.

Research Methodology

In order to investigate the position of the sugar refinery in the urban landscape of Varamin, we can use geographic information, urban fabric surrounding it, the date and the way of establishing the sugar refinery. Additionally, the urban development of Varamin during the establishment of the factory and after that and the relationship between the traditional fabric of the city and the sugar refinery can shed light on other aspects. In addition to field and library studies, compare and contrast essays and representative examples are used to better understand the position of industrial heritage of the sugar refinery in the urban landscape of Varamin. To this purpose, part of the article is dedicated to the literature review (including international rules of industrial heritage conservation and successful examples of industrial heritage

adaptation in urban landscape at the time of revival)

Industrial heritage conservation (background)

Conservation of industrial works and their technology has started since the middle of the twentieth century in America and Europe. The end of the World War II and the expansion of protective activities was the beginning of the serious process of attitudes towards industrial heritage (Cho & Shin, 2014: 71). In 1950, a group of researchers from United Kingdom investigated the roots of the industrial revolution and the architecture of the buildings of that era (Song, 2007: 482). In 1955, Michael Rix, from Birmingham University in the United Kingdom, published an article titled "Industrial Archeology" and called for the conservation of England's industrial works (Jianguo & Nan, 2007: 476). In 1973, the Association for Industrial Archaeology (AIA) was founded. Additionally, in the same year, the First International Congress on the Conservation of Monuments (FICIM) was held in England with 61 members from countries, including the United States, Canada, Germany, Ireland, the Netherlands, etc. (Song, 2007: 482). The second conference in Germany and the third international conference for the conservation of industrial heritage in Sweden (1978) led to the establishment of TICCIH (The International Committee for the Conservation of the Industrial Heritage); (Ibid). Since 1980s, European countries began to devote serious attention to the industrial heritage. First, England, in the 1970s, put the conservation of industrial heritage on the agenda. Then, France also considered the conservation of several industrial sites in the early 1980s. Like England, the United States has always been pioneering in this way. One of its large scale examples was the protection and design of urban landscape of cotton factory in industrial city of Lowell whose landscape design in the form of museum and its perimeter design as a park began in the early 1980s and continued until 2013 (Douet, 2013: 22). In addition, holding 1982 competition to design the Parc de la Villette of Paris (the old slaughterhouse) was the first propounded European project that revealed the urban process in the form of the landscape. The designs presented by Bernard Tschumi and Rem Koolhaas with the aim of designing a city park for the 21st Century established the position of landscape architecture in post-industrial areas in this competition (Farahmand, 2011: 25). In 1996, Netherlands which has been one of the FICIM members, began its activities to conserve industrial sites (Jianguo & Nan, 2007: 476). One of the most successful projects of this country was landscape design and protection of brewery factory of Amsterdam which was designed by Bob Rogers in 2004 with the aim to strengthen the relationship and create the sense of belonging in the Amsterdam urban community and introduce the history of the brewery factory.

The beginning of 21st century brought more serious international activities to conserve industrial heritage (Aminzadeh

& Ariaman, 2004: 38). During this period, industrial heritage was included into urban policies more than before. In 2000, ICOMOS and TICCIH agreed upon preserving industrial heritage (Song, 2007: 482). Focusing on resources architecture issue, the International Congress of the Union of Architects (UIA) in Berlin (2002) showed the importance of revival of industrial sites more than before (Jianguo & Nan, 2007: 47). In 2003, the International Committee for the Conservation of the Industrial Heritage (TICCIH), Nizhny Tagil, Russia, suggested the Charter for the Conservation of Industrial Heritage and its nomination on the UNESCO World Heritage List (Cho & Shin, 2014: 72). Nizhny Tagil charter was approved by TICCIH and in consultation with ICOMOS (Romeo et al, 2015: 1306). Currently, this charter is the most important international achievement for conservation of industrial heritage. Nizhny Tagil's charter has emphasized on registering and archiving documents and maps of industrial heritage. In addition, this charter refers to the remained industrial works which have historical, technological, social, architectural and landscape values (Cho & Shin, 2014: 72). Understanding the importance of industrial heritage, Asian countries also organized industrial spaces with regard to European countries and the ERIH Council of Europe and the establishment of the ARIH Council. In 2007, South Korea put the policy implementation of urban conservation called "cultural regions" on the agenda with the aim to reuse cultural heritage and their landscape design; conservation of industrial heritage was also part of this program (Ibid: 71). Eight years after Nizhny Tagil charter, in order to more widely conserve the 20th century heritage and its achievements, the Madrid document was prepared in Madrid with the aid of ICOMOS and by focusing on the provision of guidelines for conservation of 20th century heritage sites. This document states that identifying and evaluating the importance of the 20th century architectural heritage and its expression should be done based on criteria (ICOMOS, 2011: 2). In the same year, the Dublin Principles also came into force. Like Nizhny Tagil charter, Dublin Principles (2011) also define industrial heritage and refer to its importance. It has been stated that industrial heritage includes "sites, buildings, complexes, regions and landscapes, machinery, and documentary objects indicating the past industrial process" (ICOMOS & TICCIH, 2011: 2). It is also stated that in the previous decades, research, international and interdisciplinary cooperation and social development led to better understanding of the importance of industrial heritage and its position in the cities' landscape. But they are often very vulnerable and are at risk due to lack of documentation and their conservation and identification and sometimes due to economic process change (Ibid: 3). Additionally, Taipei's declaration in the east (2012) was approved by the ARIH council in the 15th session of TICCIH in order to pay attention to the Asian industrial heritage and its landscape perception more than before. It

states that the Asian industrial heritage is the integral part of collective memory and socio-economic changes and cultural landscape of that region (ICOMOS, 2012: 1). These industrial measures or actions indicate that the communities and other beneficiaries' cooperation are integral parts of the conservation of industrial heritage program and of cultural landscape of historical cities. The appropriate policies (legislation and enforcement measures) should be done for conservation of industrial heritage. Measures (policies) should be toward creating a close relationship between industrial heritage, industrial products and local economy. This should be in a way that creates the appropriate opportunities for investors' cooperation (ICOMOS & TICCIH, 2011: 5) and on the other hand, creates the appropriate opportunity for the industrial cooperation in the urban policies. Among other measures and actions that have been done in the past years, we can refer to The Latin American Industrial Heritage Conservation Conference in 2013, the French Conference (2015), the Latin American Conference (2016), etc. held by the International Association for the conservation of Industrial Heritage and sometimes with the cooperation of ICOMOS. During these 5 decades, many industrial sites were conserved and designed in order to strengthen the urban landscape and preserve the historical continuity of industrial cities. Among them, we can refer to the landscape design of the England's coal mine, the Fort Wayne Museum of Germany, the Manufacture Museum of textile Factory in Lodz, Poland, the site of Shipbuilding and Meiji Coal Mining in Japan. In addition, the revival of leather factories in Tabriz, Rybab Isfahan, Zanjan Match Factory as the first Iranian industrial museum have been among the measures done in this regard in Iran.

Urban landscape and the position of industrial heritage

In 1976, UNESCO presented a definition for historical urban landscape which included urban spaces and natural environments. In this definition, urban aesthetics, social and cultural concepts and historical achievements were taken into account (Dhingra, Singh, & Chattopadhyay, 2016: 3). In the Recommendation on the Historic Urban Landscape (glossary and definitions), it has been stated that :

The historic urban landscape is the whole historic layering of cultural and natural values of that city indicating outstanding historical attributes, including the broader urban context and its geographical setting (UNESCO, 2011:52). In other words, the historic urban landscape consists of physical contexts, beliefs and activities of a particular society, which encompasses the natural and man-made environment (Nunta & Sahachaisaeree, 2010: 1241).

Industrialization is an outstanding historic event that has led to cultural and economic development. The historical, cultural, and economic value of this era and its effect on the

shape and nature of today's cities are obvious. The shape of cities, urban spaces, and even their concepts are influenced by this process. Additionally, this period, like all historical periods (in each country, based on the particular conditions of that period), has presented a particular art and architecture (ICOMOS, 2011: 2-7).

Today, these remnants of industrial era have been woven into urban spaces in the fabric of some historic cities and become part of urban fabrics. In previous parts, in Madrid document, Nizhny Tagil charter, Taipei's declaration, Dublin principles, their conservation history was reviewed. And according to urban landscape of historic cities in the Paris recommendation 2011, today, these industrial monuments were considered as valuable artifacts made by humans and are part of urban landscape and an integral part of it. They should be included in the urban policies (architectural, landscape, protective, etc).

Sugar refinery and its position in the urban landscape of Varamin

The first areas of role-play of Varamin as an important city turn back to the Mughal Ilghar and the destruction of Ray, the Mother of Cities. This city declined after the Ilkhanis, and this trend continued until the Qajar period. Qajar period has been the development initiator to date. But the most important period and the beginning of the urban development of Varamin has been in the era of industrialization revolution from 1921 to 1941 (Habibi & Pour-mohamad-reza, 2013: 7). Varamin Sugar refinery was built in 1933 with Markov's design a few kilometers from the city of Varamin. At that time, the small town of Varamin and its traditional fabric were surrounded by gardens and agricultural lands. At the same time, the central street of the city was widened and became the east and west exit way of the city and the access route to the sugar refinery and oil extraction (Fig.1). Obviously, Varamin city has been developed today. This development has occurred in 4 directions, but the greatest development has been in the west and toward Tehran. As the city was developed in the west, the main street of the city which was widened during the first Pahlavi era, the city expansion and development was considered to be toward west and north west (1960s and 1970s) which have embraced oil extraction neighborhood and sugar refinery (Research & Development Consulting Engineers, 2014: 6); (Fig. 2).

With the presence of Ilkhani Jame Mosque and Alaoddole Tower, the historic texture of Varamin has conserved its historical landscape. Though its visual design has become completely transformed, the traditional structure of lanes and neighborhoods has remained intact. The east expansion and development of the city has been also the continuation of the same extensibility process of the Qajar-Pahlavi era and by embracing Narin Qal'eh neighborhood (ditch) and Imamzadeh Yahya (Ilkhanid) has created an integrated historical

landscape with central fabric. Extensibility is low in this area and a part of its historical fabric structure has remained. The new fabric of the western front is not alien to traditional fabric of Varamin due to its structural features and communication paths, and its association with this traditional context. But on the other hand, the linear development and expansion in the north west (toward west) is not enough associated with traditional fabric. The structure of this part (north west part) is completely different from the traditional fabric of the city and it is new built. Currently (and in the future), the greatest development of the city is in this part (Fig. 2).

Sugar refinery urban landscape

Old cities always carry several historical images with them. Though they may give them a museum format (Fakoochi, 2012: 3), their presence increases quality and is associative and memorable. It is impossible to imagine cities without history, meaning and their specific identity. Cities, in turn, carry concepts which are the identity value and meaning of that city. In fact, familiarity with the historical context is among the important principles that should not be forgotten when reading the environment and the landscape (Tabibian, 2003: 39).

The presence of sugar refinery and oil extraction neighborhood in the north west is a very important opportunity and characteristic (Fig. 2). As an architectural memorial of industrialization, the sugar refinery is capable of playing a key role in establishing a historical relationship between this part and the traditional part. Industrialization is a historical indicator in the historical landscape of Varamin city. The conservation of sugar refinery and naturally, oil extraction neighborhood and the city railroad have led to the continuation of historical landscape of Varamin city and the integration of its landscape in the north west part (toward Tehran). On the other hand, it is also a historical potential to formulate the appropriate urban policies in terms of architecture and spatial structure. The sugar refinery of Varamin is an appropriate opportunity to create designed cultural, economic, and local spaces and a sign of its comprehensiveness feature. It means that sugar refinery is capable of absorbing subjectivity and creating semantic-historical identity in the Varamin society and developing city in the historical landscape platform of the city i.e., urban landscape in the medium scale (urban public spaces) plays the greatest role in creating the individuals' mental image and is an incentive for the presence of people in the environment. Therefore, it is essential to measure correctly the quality of public spaces landscape and present realistic strategies for that (Haghi, Karimi Moshaver, Zolfigol, 2018: 529). On the other hand, one of the challenges of today's cities is the lack of landscape indicators to facilitate the perception and enhancement of the landscape in urban policies and programs. In the historical fabrics, a conserved historical landscape is considered as a landscape indicator.



Fig. 1: Varamin Sugar refinery. Photo: Amir Ali Ghanbari, 2016.

Varamin's sugar refinery and oil extraction neighborhood as historical indicators in the northwest new-built fabric allow for adjusting the landscape challenges of Varamin city along with conserving and presenting the historical landscape of the city. This act of readability strengthens the urban identity (sign and symbolic identity of Varamin city) with two historical-industrial meanings and leads to the lack of landscape discontinuation in the urban development process.

One of the other characteristics of sugar refinery landscape revival and design in the north west of Varamin city is the provision of a proper space to design green landscape around sugar refinery and oil extraction neighborhood and meeting green needs in the development and enhancement of the sensory and visual quality of the city (increasing the quality of identity and urban landscape) by designing pedestrian axis around sugar refinery and the protective-landscape programmed plan (human-interaction landscape) and comfort and social interactions landscape. Additionally, this leads to the creation of centralized tourism landscape in the west and new part of the city such as the surrounding areas of Ilkhani Jame Mosque and Alaoddole Tower whose traditional structures have strengthened the historical – interactional landscape of the city.

Providing the proper opportunity for designing a historical landscape, enhancing the integrated mental image of the historic city of Varamin and strengthening the sense of society and the sense of urban belonging and landscape belonging are also among the characteristics of protective and landscape design of sugar refinery which lead to the improvement of the urban physical and visual relationship in development process.

Enhancing the quality of surrounding neighborhoods of sugar refinery and especially oil extraction neighborhood and railroad neighborhood (strengthening the industrial history of the city), improving the quality of the future urban landscape of Varamin in the north west development (new built) and controlling the dominance of urban design over traditional and historical structures of the city with an emphasis on sugar refinery and its peripheral design are also among characteristics which are created with regard to the revival and design landscape of sugar refinery. Obviously, this leads to the reduction of socioeconomic and cultural deficiencies in the North West part of Varamin city, provision of urban Identity-Maker infrastructure and the opportunity to register the designed landscape for Varamin city.

Sugar refinery is a semantic-spatial value. Considering the

international conservation rules, especially Burra Charter 1996, conservation of this factory and considering it as a spatial heritage is important in urban policies.

Conclusion

Industrialization is a part of the emotional memory of contemporary society and is an integral part of the historical landscape of cities. Industrial heritage represents local history and cultural resource. The relationship between heritage and local communities has created a sense of belonging toward its conservation. In this research, the study of the history of the industrial heritage conservation and explanation of its significance and position in the urban landscape, and on the other hand, the definition of the historic cities landscape in the Paris Convention (2011), highlights the importance of the sugar refinery as a reminder of industrialization and memorial of the 20th century architecture in urban landscape of Varamin city.

Sugar refinery is a historical brand in the urban landscape of Varamin. This industrial heritage confirms a period of Varamin history which has led to the revival of the city's identity in the minds of the people. It is a valuable sense of belonging which can play an effective role in strengthening the quality of urban landscape of Varamin. Considering its particular position in the urban site, it leads to the association of this part with traditional fabric of Varamin and the integration of the historic urban landscape. Its revival (adding cultural aspect) can create a prominent historical-cultural space in the urban landscape of Varamin. Looking at sugar refinery in the urban policies causes the development of north west part (though is toward Tehran) to have a continuous historical relationship with Varamin city and not to be an alien. Considering the sugar refinery position in the historical memory of Varamin society, devising proper urban policies can strengthen public sense of people and enhance their historical identity. The area of the oil extraction neighborhood and sugar refinery space have embraced a large part of north east area of the city (Fig. 2). The architecture value of sugar refinery which is a memorial of industrialization and a heritage of 20th century architecture in association with social and historical values and its sense of belonging to urban society and identity giving has converted this factory to a historical potential (a memory of Iran's industrialization and part of Varamin's history) in the urban landscape. The position of the sugar refinery should be considered in urban projects and policies of Varamin.

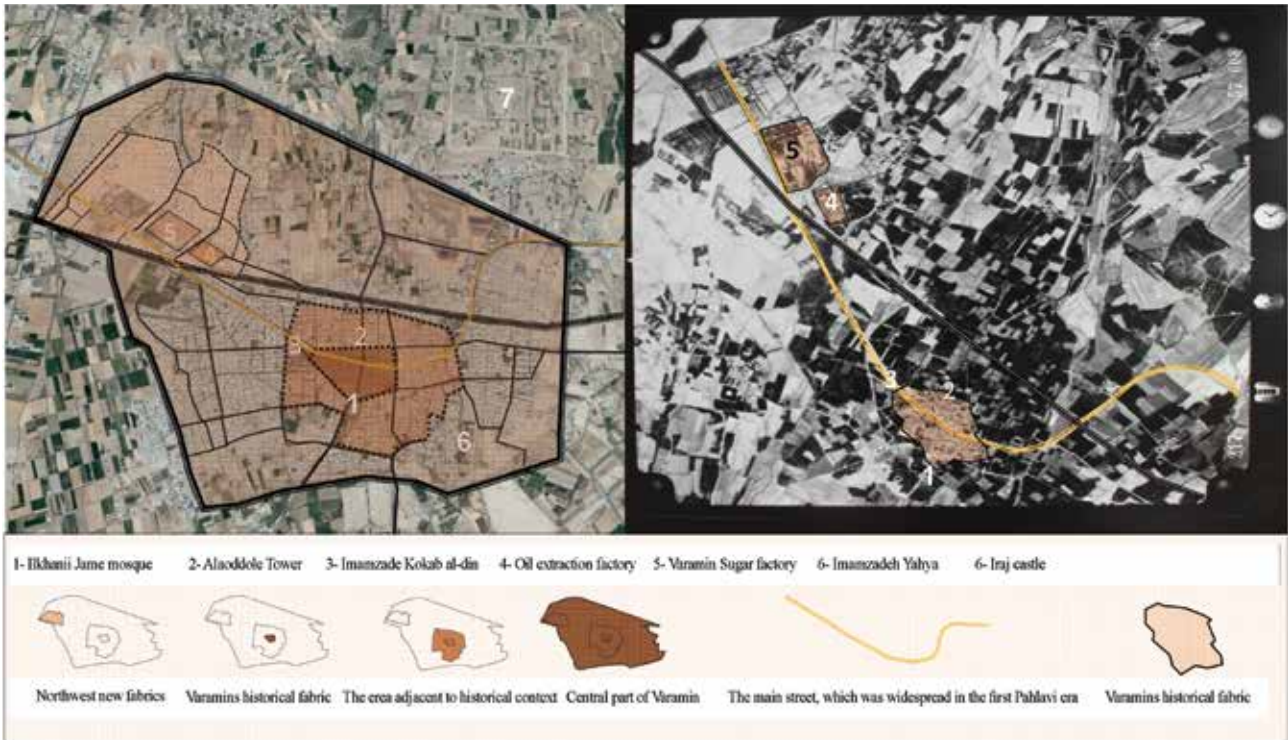


Fig. 2: Development and expansion of Varamin and historical memorials. source: National Mapping Agency.

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HOW TO CITE THIS ARTICLE

Ghanbari, A.A. (2018). Industrial Heritage in Historical Urban Landscapes. *Journal of MANZAR*, 10 (43): 24-31.

DOI: 10.22034/manzar.2018.68623

URL: http://www.manzar-sj.com/article_68623_en.html

