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**The forgotten legacy: oil heritage sites in Iran**

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During the rapid process of deindustrialization in Iran, the term 'industrial heritage' has recently emerged as a new subject into public realm. In order to integrate the methodologies for the protection and adaptive reuse strategies, the 'industrial heritage' itself needs to be divided into various categories. UNESCO has begun inscribing increasing numbers of local industrial legacies such as railway, mines, factories, assembly plants, agricultural production and manufacturing production in its World Heritage List. However, in the process of their adaptive reuse the question of heritage meanings arises. Over the past century in Iran, powerful corporate and governmental actors have created a broad range of oil imaginaries that changed over time and in line with local cultures. Starting from 1920s and after the nationalization of oil industry in Iran, oil cities such as Abadan and Masjid Suleiman saw massive expansion to house labors and oil-industry specialists who had arrived from the United States, Europe, India, and the Persian Gulf states. This research aims to clarify how the oil industry, in close collaboration with national governments, has materially shaped the oil cities through oil-specific architecture like company headquarters, gas stations, retail and infrastructure buildings. The current legacy of oil industry continues to reshape the industry, society and politics as well. This research uses a critical and analytical problem-based approach to examine the current policies that build a new image and identity through adaptive reuse strategies to promote sustainable local development in Iran's industrial heritage.

**Keywords:** Industrial Heritage, Oil industry, Oil Heritage, Iran

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## Introduction

This paper aims to explore the current legacy of oil industry and its associated concepts in broader debates on the global industry, society and politics. Then, it will analysis the current policies engaged with the adaptive reuse strategies of industrial heritage. Building on this theoretical framework, the research specifically focuses on the case of oil heritage in Iran since the value of these disappearing “live industrial history” and their potential reuse values, has been under unawareness for a long time (Farahbakhsh and Hanachi 2016). This paper aims to introduce the importance of oil in the construction of the built environment and spatial development and its effect on national identities, politics and local welfare.

## Adaptive Reuse Strategies of Industrial Heritage

Focusing on the French term “patrimoine” (usually translated as ‘Heritage’ in English), the patrimonization is a process about the critical recognition of values for local development and identity (Hospers 2002). The concepts of “Industrial Archeology”<sup>2</sup>, “Industrial Heritage”<sup>3</sup>, and “Industrial Landscape” are representative of the germination, development and maturity periods in the evolvement process of industrial heritage. During the 1990s, industrial heritage became a new interest for local development and tourism (Repellino et al. 2016).<sup>4</sup> However, as Hudson (1994) criticized the cultural values of these industrial heritage still were not recognized much by the tourists (Hudson 1994).

According to ICOMOS (International Council on Museums and Sites) and TICCIH (The International Committee for the Conservation of the Industrial Heritage), the industrial heritage’s field “focuses on the remains of industry- industrial sites, structures and infra structure, machinery and equipment, housing, settlements, landscapes, products, processes, embedded knowledge and skills, documents and records as well as the use and treatment of this heritage in the present. Industrial heritage includes not only the remains of the Industrial Revolution, but also the traditional precursors from earlier centuries that reflect increased technical specialization, intensified productive capacity, and distribution and consumption beyond local markets, hallmarks of the rise of industrialization. Industrial heritage

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<sup>2</sup> At the end of the 19<sup>th</sup> century, industrial archeology was firstly risen in Britain. Recently, the subject of industrial archeology has grown to the sub-discipline of archeology accompanied implementation and policies for documenting, recording, and listing industrial archeology in Europe, See Minchinton, *World Industrial Archeology: A Survey*, 125-136.

<sup>3</sup> The International Committee for the Conservation of the Industrial Heritage (TICCIH) was founded in 1978. Since then, the study of industrial heritage stepped in the development period.

<sup>4</sup> The experiences with Industrial Heritage Tourism in the Ruhr area in Germany is a good example.

also includes the planning, policy-making and rehabilitation necessary to manage these remains in the face of deindustrialization” (Martin and Araoz 2014).

In a more general scale, analyzing the role of industry in the city helps to redefine the connection between cities and industries and therefore provide a unique urban experience through collective memory (Bonino and De Pieri 2015). Based on the new frameworks and strategies that were developed recently, the scope of industrial heritage had been enlarged from the single monument to the whole landscape.<sup>5</sup> In better words, the focus on industrial heritage has been evolved from a specific interest in the monument (the individual building or a single machine) to the industrial sites (including the machines, buildings and its infrastructures), then to the whole industrial area and landscape (Yao 2014). In the meanwhile, new representation of industrial heritage such as on-site preservation, eco-museums and collections of artifacts emerged (Alfrey and Putnam 2003, 340). In Europe, the successful experiences of recovery on a regional scale and to protect industrial heritage sites and their preservation encouraged the European Route of Industrial Heritage (ERIH) to be founded.<sup>6</sup> This virtual library aims to facilitate research among organizations and academic institutions involved with preserving data about the industrial sites (Berens 2010, 256).

The new approaches to the protection and adaptive reuse of industrial heritage from the emphasize on conservation, then on physical renewal and regeneration, now has been upgraded within a much wider context, including social, economic, cultural and environmental contexts (Repellino et al. 2016, 72; Razavivand fard and Mehan 2018, 190-191). According to Hatuka and Ben-Joseph (2017), from the 1750s on, three phases in the evolving spatial dynamics between city and industry have been identified: the emergence of industrial city (1750-1880), a search for an ideal industrial city (1880-1970) and the process of deindustrialization (from the 1970s on) (Hatuka and Ben-Joseph 2017, 11-12). These evolving dynamic between city and industry resulted in three prototypes of industrial spaces including integrated, the adjacent and the autonomous (Hatuka, et al. 2014). By analyzing the relationship between the built environment and its heritage through the concept of the “territorial local system” as an experience implying and allowing the contemporary presence and closeness of different actors, local industrial heritage could become a core factor for the development of the territorial local system (Montella 2009).

In this sense, heritage sites require rethinking how to balance protection, conservation and development issues. In order to identify the appropriate reuse strategies, the industrial heritage needs to be categorized into various groups. Based on the Historic American Engineering Record (HAER), the sub-themes of industrial heritage show 10 categories as follows: 0. Executive Industries (e.g. Ore- or Gold-

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<sup>5</sup> The introduction of the term “Cultural Landscape” in the UNESCO World Heritage is a good example.

<sup>6</sup> <https://www.erih.net/>

mining), 1. Bulk Products Industries (e.g. primary metal industries), 2. Manufacturing Industries (e.g. machine manufacture), 3. Utilities (e.g. water supply), 4. Power Resources and Prime Movers (e.g. water wheels, steam turbines), 5. Transportation (e.g. railroads, canals, harbor), 6. Communication (e.g. radio, telephone), 7. Bridges- Trestles- Aqueducts, 8. building technology (roof systems, fenestration), 9. specialized structures/objects (e.g. dams, tunnels, hydraulic works).<sup>7</sup> In this classification system, “crude petroleum and natural gas (OIL)” are sub-categorized under the Executive Industries which will be the main focus of this research as the oil industrial heritage.

### **Spatial dimension of the legacy of oil industry in Iran**

Over the last 150 years, extraction, refining, transformation, and consumption of petroleum have made an extensive impact on oil cities. Concurrently, the diverse spatial emanations of oil are connected through their relationship to the groups of industrial players. Here this critical question arises: what is the relationship between the concept of global oil sites and the built environment?

As Carola Hein well-clarified the different layers of the physical and financial flows of petroleum such as physical, represented, and everyday practices combine into a palimpsest of global oil sites (Hein 2018, 1-2). From another perspective, Michael Watt, uses the term *oil complex* (or *oil assemblage*) as the particular territorializing of the oil complex and the technological zone which is a center of economic, political and scientific circulation (Watts 2009). For analyzing the interrelations between oil and global politics in the nineteenth and early twentieth centuries, Timothy Mitchell in his book-*Carbon democracy*- explores the rise of a certain kind of democratic mass politics and the historical development of energy from fossil fuels (Mitchell 2009, 2011).

In the Middle East, the colonial regimes and rising global corporations, greatly influenced on the patterns of oil spatializing (Fuccaro 2013). In the post-war economic expansion period, As US planners worked to engineer the political order in Europe, the radical shift from coal to oil, introduced in Europe through the Marshall Plan, which widely affected the labor dynamics of global industrial capitalism (Bogaert 2014, 1). Western Europe had no oilfields, so the additional oil would come from the Middle East (Mitchell, *Carbon Democracy* 2009, 406). In Iran, the capitalist expansion has always been closely tied to urbanization (Karimi 2012). Focusing on dynamics and actors of oil, the transformation of urban spaces for and by oil in Iran began in 1908 by oil extraction in the southern region of Khuzestan under the British influence (Crinson 1997). Between 1908 to 1920, Anglo-Iranian Oil Company

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<sup>7</sup> See: <https://whc.unesco.org/archive/ind-study01.pdf>

(APOC) constructed a series of small new towns such as Masjed Soleiman, Haftgel, Lali, Aghajari, and Omidieh near new drilling sites in the oilfields of Khuzestan to accommodate oil workers (Hein and Sedighi 2016, 354). Considering the representations of oil in spatial practices, the oil industry in Iran has a close collaboration with national governments to develop industrial growth. In this sense, it is critical to understand how it shapes future design and industrial heritage policies.

### **Conclusions: Looking for alternative Future Policies**

In post-oil future cities, it is important to identify the moments of decisive change toward new energy values and policies. Moreover, in the aftermath of decolonization and the transformations of neoliberal global order, it is important to understand the significance and dynamics of the global oil complex (Ehsani 2018, 27). However, finding the right balance between the preservation strategies and spatial changes should be reconsidered. As Robiglio well-clarified “to minimize the required resources and budget, an adaptive reuse project starts with the selection of the appropriate infrastructure to reuse. This phase is important to build community awareness around potential opportunities, but there needs to be some structure to support this exploration” (Robiglio 2017, 148).

Focusing on industrial heritage in Iran, oil heritage along its historical significance should be represented as a part of national memory and identity. Comparing to the international scale, the focus on “industrial heritage” in Iran has been started lately, as well as the acceptance of its values. Today, there are nearly 200 museums in the world that exhibit oil and gas machinery and relics. Starting from January 2014, arrangements began to establish the national Museums and document center of oil industry in Iran set up by the direct order of the Iranian Minister of Petroleum-*Bijan Namdar Zangane*- that tries to collect and display old oil industry equipment.<sup>8</sup> However, the management policies and its related regulations are still developing. The framework for achieving the sustainable adaptive reuse should integrate the social, political and economic policies. In addition, the role of participatory governance and the importance of community participation are critical in the process of achieving sustainable development (Yung and Chan 2012, 356). In this sense, for achieving a holistic and methodological reuse strategies it is required to reconsider various factors such as national policies and the economic system as well. Due to the lack of integrated management system, it is necessary to develop new methods to identify and protect industrial heritage with high values and significance.

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<sup>8</sup> See <http://www.petromuseum.ir/en>

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