Shifting from industrial heritage to a heritage for the future; 
Case study: Mashhad textile factory, Iran

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Abstract:
Nowadays, due to the great developments in technologies, and the resulted new lifestyles, the structure of the urban spaces must be adjusted accordingly. Therefore, the preservation and transformation of the unused industrial spaces and its functions becomes a major issue in the urban environment. This research aims to introduce the industrial heritage of Iran, specifically the Mashhad textile factory, as well as to present an integrated approach for its conservation and transformation, along with preserving its cultural and historical significance for the future generations. The research begins with a study on the historical evolution of Iran’s industries. Based on this history, the Mashhad textile factory which is known as one of the endangered pioneers of its kind was chosen as a case study. To gain an insight into the subject, an analytical-description technique was adopted. In this case, various actors have put forward different concepts and objectives, which resulted in conflicts over the management of this heritage. Therefore, in order to identify these conflicts, six discourses were defined based on a synchronic discourse analysis (SDA). Eventually, integrated plans and strategies were presented following the assimilation of all discourses and the bridging values. The findings indicate that spatial quality, design, and reuse are bridging values that replicated in all the discourses. These values can be interpreted as guiding elements which give way to resolving conflicts. The act of transforming buildings by proposing a new function along with a symbolic design, the integration of smart materials and technologies and lastly, creating links with the historical context are methods that can perfectly achieve the objectives of the many discourses. The process of contemporization and the adaptive reuse of industrial heritage will always invoke conflicts among stakeholders. However, defining conflicting discourses and bridging values based on a synchronic discourse analysis can lead to an integrated planning practice toward preservation.

Keywords: synchronic discourse analysis (SDA), sustainable adaptive reuse, green redevelopment, heritage for future.

1 This manuscript is result of a comprehensive study regarding industrial heritage of Iran in Tarbiat Modares University and Ferdowsi University of Mashhad; and is the output of the research project “Modern Heritage to Future Legacy: Conservation and Conversion of Modern Industrial Heritage Sites as an Integral Part of Urban Development in the Middle East: The Case of Iran and Egypt”. 
Introduction
As mentioned in Burra charter, groups and individuals with associations with the place as well as those involved in its management should be provided with opportunities to participate in identifying the cultural significance of the place as well as involving in its conservation and management. This research aims to set a common ground for understanding and participating different agents involved in a real case in developing countries such as Iran. To gain an insight into the subject, SDA is presented as a research instrument used in the social sciences.

1- Research Method and Research Question
In this research SDA is used as an analytical tool to understand the demands of different stakeholders involved in case of Mashhad textile factory and tries to present an integrated planning practice for its adaptive reuse. This Method consists of 6 steps (figure 1), which starts with developing a guiding research question and ends with presenting an integrated approach for preservation. The main question of this research is “How to preserve and adaptive reuse the industrial heritage, specifically the Mashhad textile factory in order to be passed on to the future generations along with preserving its cultural and historical significance?”

![Figure 1](image)

2- Literature review
Industrial heritage includes buildings and machinery, workshops, mills, and factories, which once had a significant role in the industrial revolution and now are derelict. Indeed, preservation and adaptation of an industrial site to a new use may pave the way for future social activities. Iran has a rich industrial history, but many of the industrial sites and complexes that formed the economic base of this country are now left abandoned. The industrial revolution of Iran began after World War I at the time of Amir Kabir, coinciding with the European Industrial Revolution in 1848. The Qajar period was the starting point for the changes in Iranian contemporary architecture and urban planning, but the turning point of these changes and developments was especially in the Pahlavi era as the flourishing period of Iranian industrial architecture. In Pahlavi era, Reza Shah constructed over 270 factories; therefore, the country achieved self-sufficiency in industrial products by up to 70%. Most of the industrial buildings in Iran have been constructed with the help of foreign experts, specifically the Germans. Industrial heritage is, arguably, a unique cultural discourse, which brings challenges found nowhere else in the heritage sector and requires innovative answers. Evaluating industrial heritage should consider the social, economic, environmental, and political contexts, as well as the desires of future stakeholders. Various actors put forward different concepts and objectives, which in turn have
led to conflicts over the management of industrial heritage. SDA method as an analytical tool can resolve these conflicts based on bridging values, as well as presenting a preserving approach.

2-1- Case study (Mashhad Textile Factory)

*Mashhad* textile factory is a pioneering example of industrial complexes in the first *Pahlavi* era, which was built around 1936 by German companies (figure 2-4). The establishment of this factory has had a positive effect on the economy of *Mashhad*, due to an increase in employment and highlighting a prosperous future. Since it was designed and built by a German company named *HOKHTIEF*, it is known as an exemplar of the shared heritage site of Iran and Germany. All the spinning machinery was ordered to *Platt Brothers* British Company. The history of the factory has been witness of an international interchange and a joint effort of the German, Austrian, Italian and Swedish engineers before World War II; and then the effort of the British and American engineers after World War II. The *Mashhad* Textile Factory used to work until 1990 before it was derelict and abandoned completely. Finally, in 2020 it was enlisted in the National Heritage List of Iran, and today part of this industrial heritage turned into a pilgrimage museum, but most of it is left abandoned.

![FIGURE 2-4, Different buildings of Mashhad textile factory, pictures were taken in October 2019](image)

3- Application of SDA method

The process of contemporization and the adaptive reuse of industrial heritage will always trigger conflicts among stakeholders. These conflicts can be identified and solved within the help of SDA. It is called synchronic because the interactions between different actors happen synchronically. Discourses are based on basic concerns in our societies, and are defined by their concepts and objectives, their basic assumptions, and their values, which are briefly explained below:

- **Concepts**: concepts constitute the conceptual infrastructure within every discourse.
- **Objectives**: objectives express aims for the future.
- **Basic assumptions**: They are the key statements of every discourse and connects concepts, objectives and values.
- **Values**: values are the final justifications for the basic assumptions and the choice of concepts.  

3-1- Identifying discourses relevant to the case study

The first discourse is heritage conservation (table 1). Striking a balance between the two concepts of conservation and development of cultural heritage always bring forth challenges, which can be resolved by the concept of development in line with heritage protection standards. Design, spatial quality, and sustainability are of value, as the case of Mashhad textile factory shows.

The core focus of urban development as the second discourse is economic development and the creation of a livable city with spatial quality for the users. This discourse brings together heritage conservation and urban development discourses, but their priorities are different. Transforming
former industrial sites into places with prospects for the future is the major issue of this discourse. To achieve such objectives, special planning and often iconic designs are required. The third discourse is considered to be Tourism development. The adaptive reuse of Mashhad textile factory may result in tourism development, Due to its location close to Imam Reza holy shrine and the religious identity of Mashhad. Transforming these heritage sites into a tourist destination required an appealing vision, a positive image, and often iconic design and may result in economic growth in society, as well as creating national pride for the locals. Architectural production as the fourth discourse has a long tradition in the conservation, adaptive re-use, and alteration of historic buildings. Generally, the existing structure is understood as raw material that inspires transformations. When it comes to radical alteration, interventions are a little different, but still Contemporary architecture can remain subordinate to the existing structure. With this focus, it is possible to preserve the authenticity of heritage sites even when carrying out interventions and additions. The fifth discourse is interacting with the city. Industrial heritage often reduces the livability of the local context due to its large scale. Opening these sites toward the city and sharing some common activities may result in dynamism and livability of the historical context. This discourse can somehow be considered a subset of urban development and can also fulfill its objectives. The sixth discourse is defined as energy efficiency. There is an increased demand among architects to design buildings that reduce energy consumption. Sustainable adaptive reuse of industrial sites can reduce negative environmental impacts, as well as foment economic prosperity, social inclusion, and a better quality of life.14

<table>
<thead>
<tr>
<th>Discourse</th>
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<tbody>
<tr>
<td><strong>TABLE 1. Discourses of Mashhad Textile factory</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Discourse</strong></td>
<td><strong>Concepts</strong></td>
<td><strong>Objectives</strong></td>
<td><strong>Basic assumptions</strong></td>
</tr>
<tr>
<td><strong>First Discourse:</strong> Heritage conservation</td>
<td>Minimal intervention, Development-led conservation</td>
<td>To protect and preserve the testimony to the past</td>
<td>Material heritage is a testimony to historical values and identity and should be preserve for the future era</td>
</tr>
<tr>
<td><strong>Second Discourse:</strong> Urban development</td>
<td>Culture-led development, heritage-led development</td>
<td>To create prosperous and liveable city with memorable spaces</td>
<td>Ongoing development and transformation are needed to address changing demands</td>
</tr>
<tr>
<td><strong>Third Discourse:</strong> Tourism development</td>
<td>Tourism development through adaptive reuse of industrial heritage</td>
<td>To create a tourism region as long as preserving values and historical identity</td>
<td>Industrial heritage can be used to develop tourism activities</td>
</tr>
<tr>
<td><strong>Fourth Discourse:</strong> Architectural production</td>
<td>Iconic architecture</td>
<td>To re-use existing structures for creating new forms</td>
<td>Use existing structure as a raw material</td>
</tr>
<tr>
<td><strong>Fifth Discourse:</strong> Interacting with city</td>
<td>Interacting with city through sharing some common spaces</td>
<td>To create prosperous, dynamic and livable city</td>
<td>Large scale industrial complexes reduce the livability of city</td>
</tr>
<tr>
<td><strong>Sixth Discourse:</strong> Energy efficiency</td>
<td>Sustainable adaptive reuse</td>
<td>To reduce negative environmental impacts</td>
<td>Energy efficiency can be used as a preserving method in heritage sites</td>
</tr>
</tbody>
</table>

3-2- Assimilation of discourses and identifying bridging values

Values, which constitute interpretation and thus lend a specific significance to the planning object, justify assumptions, as well as the formulation of objectives and the choice of concepts.15 The empirical analysis of the Mashhad textile factory indicates the existence of bridging values,
which form the basis for integrative planning practice. These values are summarized in table 2 along with strategies, which can help achieving the objectives. Re-use, spatial quality and design are values which repeated in almost all discourses and are of significant value among agents. Analyzing materials related to the case study indicate that adaptive reuse of heritage sites can improve the quality of life in the neighborhood and can satisfy the needs of locals along with other stakeholders. Spatial quality and design are other bridging values, which can be attained through the assimilation of architecture production and interacting with the city. Iconic and striking design along with creating spatial qualities in urban areas may result in the livability of the neighborhood. Ongoing development and transformation are needed to address the changing demands of the contemporary world. This objective can be achieved through the assimilation of energy efficiency with architectural production discourse and may result in high-quality spaces, which can accommodate the needs of today’s generation. But it should be considered that a new image, created by iconic architecture, can quickly destroy the historical identity of a place. Therefore combining these discourses with heritage conservation discourse may result in a balance between old and new. Redesigning industrial heritage should be jumping back and forth between past and present to preserve this heritage for the future era.

TABLE 2, identifying bridging values in the case of Mashhad Textile factory

<table>
<thead>
<tr>
<th>Bridging values</th>
<th>Discourse</th>
<th>Strategies</th>
<th>Diagram</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conservation</td>
<td>Almost all discourses</td>
<td>Contemporization (striking a balance between conservation and development)</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Development</td>
<td>Almost all discourses</td>
<td>Eliminating the borders of industrial site with the city, and designing new path through the complex</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Accessibility</td>
<td>Interacting with city</td>
<td>Iconic design and creating unique spaces the use of smart materials and technologies in design process</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Re-use</td>
<td>All discourses</td>
<td>Defining a new function</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Spatial quality</td>
<td>All discourses</td>
<td>Use of smart material and technologies along with preservation methods (like using solar panels, smart windows...)</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Design</td>
<td>All discourses</td>
<td>Preserving authenticity along with adding a new and modern layer</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Sustainability</td>
<td>Almost all discourses</td>
<td>Defining new function, Use of smart materials</td>
<td><img src="image" alt="Diagram" /></td>
</tr>
<tr>
<td>Spatial character and uniqueness</td>
<td>Architectural production and Heritage conservation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Economic and environmental value</td>
<td>Tourism development, Urban development, Energy efficiency</td>
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</tbody>
</table>

4- Conclusion
This paper investigates whether and how conflicts in planning practice can be examined using SDA as an analytical tool. This method is considered effective from the perspective of reasoning theory when there is a divergence in values. Six discourses were defined for the case of Mashhad textile factory. Based on the presented method, internal conflicts of every discourse can be identified and resolved through design strategies. But, solving conflicts and oppositions between
discourses requires assimilation of discourses and identifying the bridging values. A complete list of bridging values for this case is demonstrated in Table 2. This research presents some strategies based on these bridging values in order to meet an integrated project, a green deindustrialization plan, and a sustainable planning practice for the future generation. For example, Borders of Mashhad textile factory with the city can be removed based on urban development and interacting with city discourses and a new path can be designed through the complex based on the bridging values of accessibility and spatial quality. This strategy may lead to creating sociable urban spaces as well as providing easy and quick access for locals. The location of this complex, which is close to Imam Reza Holy shrine along with appropriate urban infrastructure, like proper access to public transformation, provide a good platform for tourism development. Dedicating parts of this complex to cultural activities can not only improve the social and cultural status of the neighborhood but also attracts tourists and pilgrims and extend the cultural experiences of them in learning about the past and present of this city. Almost all façades of this complex are demolished and need repair and maintenance in different dimensions. The use of smart materials and technologies in the process of renovation may result in not only achieving objectives of energy efficiency and urban development discourses but also creating iconic spaces. Generally, contemporization of industrial heritage will always trigger conflicts among stakeholders. However, defining conflicting discourses and bridging values based on SDA method can result in an integrated planning practice toward preservation.

End Notes

10. Barati Ardin, p. 3.
15. Oevermann, p. 61.