INVESTIGATING MODERN INDUSTRIAL HERITAGE THROUGH VALUE BASED MAPPING OF ZONGULDAK CENTRAL SCRUBBER AREA

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ABSTRACT

INVESTIGATING MODERN INDUSTRIAL HERITAGE THROUGH VALUE BASED MAPPING OF ZONGULDAK CENTRAL SCRUBBER AREA

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With the effect of industrialization, modernism has become a movement that transformed social lifestyle and manufacturing types concerning both urban, architecture, and socio-economic relations. Nevertheless, produced spaces of modernism, particularly industrial buildings, have been abandoned and become idle in conjunction with changing economic and social relations in industrial cities like Zonguldak. On the other hand, modern industrial buildings as a production space exhibit social, spatial, and socio-economic identity transformation of this era. These buildings include various values that can be determined both by users and archival documents. Notably, after 2006 International Day for Monuments and Sites organized by ICOMOS under the industrial heritage concept, conservation of the industrial buildings with their infrastructural systems have become the critical discussion in urban authorities and academic studies which one of them is Zonguldak Central Scrubber. In this dissertation, Zonguldak, as the prominent industrial city of the Turkish Republican Period, is scrutinized profoundly with the central scrubber facility area by using creating mapping techniques within a value-based approach. The obtained information from the archival survey and in-depth interviews with stakeholders helps to reveal the perceived and existing values of the case site and
Zonguldak city by comparative and mixed-method research analysis. This data exhibits the unique situation of both an establishment story of Turkey and the formation of Zonguldak city. Also, this study focuses on the effect of industrialization and deindustrialization on urbanization and urban life character. The results of the study are examined in different scales through rhizome, layering, and conceptual mapping techniques within the scope of perceived value. Consequently, this thesis documents the past and current situation of Zonguldak Central Scrubber through perceived and existing value.

Keywords: conservation, industrial heritage, creative mapping, value-based approach, urban form
ÖZ

ZONGULDAK MERKEZ LAVVAR ALANININ DEĞER BAZLI HARİTALANMASI ÜZERİNDEN MODERN ENDÜSTRİ MİRASININ İNCELENMESİ

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Anahtar Kelimeler: koruma, endüstri mirası, yaratıcı haritalama, değer bazlı yaklaşım, kent formu
To my family,
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# TABLE OF CONTENTS

ABSTRACT ................................................................................. v
ÖZ ............................................................................. vii
ACKNOWLEDGEMENTS ............................................................ x
TABLE OF CONTENTS ................................................................ xi
LIST OF TABLES .......................................................................... xv
LIST OF FIGURES ......................................................................... xvi
LIST OF ABBREVIATIONS .......................................................... xix

CHAPTERS

1. INTRODUCTION ...................................................................... 1
   1.1 Definition of the Problem and Thesis Statement ................. 1
   1.2 Scope and Objective ................................................................. 4
   1.3 Theoretical Structure and Methodology ................................. 6
   1.4 The Thesis Structure ................................................................. 12

2. INDUSTRIALIZATION AND CONSERVATION OF INDUSTRIAL HERITAGE ............................................................. 15
   2.1 Background of Industrialization and Footsteps of Heritage Idea ........ 15
       2.1.1 Industrialization and Deindustrialization ...................... 15
           2.1.1.1 Birth of Modernization ............................................. 20
           2.1.1.2 Prime of Modernization .......................................... 25
           2.1.1.3 Fraction of Modernization ..................................... 32
       2.1.2 Heritage Idea ................................................................. 34
4. CONSERVATION THROUGH INFORMATION TECHNOLOGY ..........81
   4.1 Information Technology ..............................................81
   4.2 Digital Heritage .....................................................83
      4.2.1 3D Modelling ....................................................83
      4.2.2 Heritage Maps ...................................................84
         4.2.2.1 Geographic Information Systems .........................84
         4.2.2.2 Crowdsourcing ..............................................85
   4.3 Mapping Technology and Creative Mapping Techniques ..........87
      4.3.1 Layering Map ....................................................96
      4.3.2 Rhizome Map ....................................................99
5. METHODOLOGICAL FRAME OF THE CASE STUDY ..................103
   5.1 Proposed Value Based Approach ..................................103
   5.2 Revealing Values with Primary Sources .........................107
6. ZONGULDAK CENTRAL SCRUBBER AREA DOCUMENTATION ......123
   6.1 Contextual Background of Zonguldak and The Site ............123
      6.1.1 Ottoman Empire Period .......................................125
         6.1.1.1 Birth of Coal Transportation .............................126
         6.1.1.2 Birth of Urban Fabric with Industrialization ...........129
      6.1.2 Republican Period ...............................................133
         6.1.2.1 Birth of Modern Urban Environment with Industrialization 134
         6.1.2.2 Prime of Industrialization ................................138
         6.1.2.3 Fraction of Urban Form and Deindustrialization .......147
   6.2 Value Based History of The Zonguldak Central Scrubber Area 149
   6.3 Mapping Analysis of Site Survey ..................................170
6.3.1 Rhizome Mapping ................................................................. 170
6.3.2 Layering Mapping ............................................................... 175
6.3.3 Conceptual Mapping ......................................................... 176
6.3.4 Perceived Value Mapping .................................................. 182
6.4 Importance of The Study ...................................................... 185

7 THE CONCLUSION ....................................................................... 187
7.1 Summary .................................................................................. 187
7.2 Findings of The Research and Documentation ....................... 190
7.3 Contribution to Literature ....................................................... 194
7.4 Further Research ..................................................................... 195

REFERENCES ................................................................................ 197

APPENDICES
A. Interview Questions ................................................................. 211
B. Interview Transcriptions .......................................................... 215
C. Translations ............................................................................. 247
D. Archival Documents ................................................................. 249
E. Research for Further Studies .................................................... 257
LIST OF TABLES

TABLES

Table 4.1. The distinction diagram of creative mapping techniques. .........................88
Table 4.2. The four common creative mapping techniques made by author (2019). 95
Table 5.1. The code list for value set. ......................................................................106
Table 5.2. The general information about interviews. .................................................111
Table 5.3. The coding theme list prepared by author (2019). .................................117
Table 6.1. The Planning History of Zonguldak..........................................................135
Table 6.2. The golden age statistics of the city, production and manpower. ..........168
Table 6.3. The last period statistics of the city, production and manpower..........169
Table C.1. Translation list .........................................................................................247
LIST OF FIGURES

FIGURES

Figure 1.1. The thesis methodology made by author (2019)................................. 7
Figure 2.1. Modernity, Economy and Heritage Organization Timeline...................... 19
Figure 2.2. The modern era urban land use model proposals................................... 26
Figure 2.3. Definitions for heritage intervention, prepared by author (2019)............. 38
Figure 2.4. The timeline 1 of organizations and Articles, made by author (2019).... 41
Figure 2.5. The timeline 2 of organizations and Articles, made by author (2019).... 42
Figure 2.6. Organizations for industrial heritage, prepared by author (2019)......... 45
Figure 2.7. ERIH official website.............................................................................. 47
Figure 2.8. National Parks Service Official Website.................................................. 48
Figure 2.9. Map of North Rhine Westphalia............................................................ 50
Figure 2.10. 1972 West German Thematic Map....................................................... 52
Figure 2.11. Zeche Zollverein Complex (Haznedar, 2008)........................................ 53
Figure 2.12. Route.industriekultur map.................................................................... 56
Figure 2.13. The Zollverein Ice Rink........................................................................ 57
Figure 2.14. The thematic section designed by OMA................................................ 58
Figure 3.1. Value based approach diagram (Poulis, 2014)......................................... 64
Figure 3.2. Value Cloud Map prepared by author (2019). ......................................... 68
Figure 3.3. Relation diagram designed by the author (2019)...................................... 75
Figure 3.4. Triputial space concept prepared by author (2019)................................ 78
Figure 4.1. Digital and physical space relation designed by author (2019)............ 81
Figure 4.2. Process of digitally aided restoration (Lu & Pan, 2010)......................... 83
Figure 4.3. Typology for crowdsourcing.................................................................. 86
Figure 4.4. The mapping process (Buttenfield, 2012)............................................... 90
Figure 4.5. The presentation strategies for maps (Krygier & Wood, 2011).............. 92
Figure 4.6. Functional complexity and level of abstraction (Buttenfield, 2012)..... 93
Figure 4.7. Project drawings drawn by Tschumi Architects..................................... 97
Figure 4.8. Parc de la Villette Competition Entry (OMA, 1983).............................. 98
Figure 4.9. Charles Minard’s Napoleon’s Moscow March .................................. 101
Figure 4.10. ESRI map of Minard’s route ....................................................... 102
Figure 5.1. Triad relation diagram designed by author (2019) ......................... 104
Figure 5.2. Value transfer relation diagram designed by author (2019) .............. 105
Figure 5.3. Proposed value-question relation designed by author (2019) .......... 109
Figure 5.4. Juxtaposition of all questions designed by author (2019) ............... 114
Figure 5.5. One of the interview analysis scene ................................................. 115
Figure 5.6. A partial view from outcome ........................................................... 116
Figure 5.7. Guide map for analysis designed by author (2019) ......................... 119
Figure 6.1. ZBK Coalfield Region ................................................................. 123
Figure 6.2. Zonguldak Ottoman Empire Period prepared by author (2019) ........ 125
Figure 6.3. 19th Century Zonguldak Coalfield Boundaries .......................... 126
Figure 6.4. Zonguldak Coalfield Region Boundaries ....................................... 128
Figure 6.5. The coke and briquette factories and No.2 washing facility ............. 131
Figure 6.6. Zonguldak Republican Period prepared by author (2019) .............. 133
Figure 6.7. The city plan of Tevfik Çakmakçı (Zaman, 2019, personal archive) ... 136
Figure 6.8. The historical serial port, taken by the author (2019) ..................... 137
Figure 6.9. 1953 Fevkani Bridge (Zaman, 2004) .............................................. 140
Figure 6.10. City view from Fener in 2006 ....................................................... 141
Figure 6.11. The unused railways in the center, taken by the author (2019) ....... 142
Figure 6.12. Pre-Plan of Zonguldak Region ................................................... 144
Figure 6.13. 1971-75 ZMADP by Engin Erkin ................................................. 145
Figure 6.14. The comparative image of the site ................................................. 148
Figure 6.15. Ideal presentation of the case site designed by author (2019) ........ 151
Figure 6.16. K and J Sections (TTK Archive, 2019) ........................................ 153
Figure 6.17. Proposed management for facility (Didari & Kızgut, 2004) .......... 155
Figure 6.18. Registration Decision Paper ......................................................... 156
Figure 6.19. The loss of relation of building parts .......................................... 161
Figure 6.20. The loss of relation, indeterminant use taken by the author (2019) ... 162
Figure 6.21. Diagrammatic idea of rhizome mapping designed by author (2019). 170
Figure 6.22. The miner’s monument taken by the author (2019).................. 171
Figure 6.23. The current Fevkani Bridge, taken by the author (2019)........... 172
Figure 6.24. Rhizome mapping made by author (2019)............................. 173
Figure 6.25. Restitution of Central Scrubber made by author (2019).......... 174
Figure 6.26. Interview question-answer matching made by author (2019).... 176
Figure 6.27. Analysis map of city character question answers (2019)........... 178
Figure 6.28. Analysis map of city social facilities question answers (2019). .. 180
Figure 6.29. Analysis map of central scrubber question answers (2019)....... 181
Figure 6.30. Golden age value analysis map (2019). ................................. 183
Figure 6.31. Downfall value analysis map (2019)..................................... 184
Figure D.1. Commission of Ministries (1947-1948), the first decision of construction of harbor and central scrubber (Personal Archive of Zaman, 2019). 249
Figure D.2. 2010 Municipality Council Decision Paper documents the declation of the site as special project area (Zonguldak Municipality Archive, 2019). 250
Figure D.3. 1970 Zonguldak TTK Statistics retrieved from personal archive of Zaman (2019)........................................................................ 251
Figure D.4. 1980 Zonguldak TTK Statistics retrieved from personal archive of Zaman (2019)........................................................................ 251
Figure D.5. 1926 Tevfik Çakmakçi Zonguldak City Map (retrieved from personal archive of Zaman, 2019). ................................................. 252
Figure D.6. 1971-75 Zonguldak City Master Plans by Engin Erkin for ZMA (Sheet number: 0402, retrieved from personal archive of Zaman, 2019)........ 253
Figure D.7. 1949 Zonguldak harbor plan by Dutch Firm (Zaman, 2004). ...... 254
Figure D.8. Basic production Scheme of site (Ateşok, 2004). ..................... 254
Figure D.9. +14.00 floor plan of site 1/100 scale (TTK Archive, 2019)........ 255
Figure D.10. A, B, C sections of site 1/200 scale (TTK Archive, 2019)...... 256
Figure E.11. Towards a generic approach for designing for all users. .......... 257
Figure E.12. Naked city........................................................................ 258
Figure E.13. ("180Spatial Agency")......................................................... 260
Figure E.14. Stories and places. .............................................................. 262

xviii
LIST OF ABBREVIATIONS

ABBREVIATIONS

BEU: Bülent Ecevit University
CBD: Central Business District
CMT: Creative Mapping Techniques
ÇEKÜL: Foundation for the Protection and Promotion of the Environment and Cultural Heritage
DOCOMOMO: International Committee for Documentation and Conservation of Buildings, Sites and Neighbourhoods of the Modern Movement
E-FAITH: European Federation of Associations of Industrial and Technical Heritage
ERIH: European Route of Industrial Heritage
FICCIM: First International Congress on the Conservation of Industrial Monuments
GIS: Geographic Information System
ICOMOS: International Council on Monuments and Sites
ICCROM: International Centre for the Study of the Preservation and Restoration of Cultural Property
IMF: International Monetary Fund
İTU: İstanbul Technical University
UNESCO: The United Nations Educational, Scientific and Cultural Organisation
SICCIM: Second International Conference on the Conservation of Industrial Monuments
TTK: Turkish Hard Coal Institution
TICCIH: The International Committee for the Conservation of Industrial Heritage
TOKİ: Housing Development Administration of Turkey
YEM: Construction Industry Centre
ZCS or ZCCWA: Zonguldak Central Scrubber or Coal Washery Area
ZOKEV: Zonguldak Culture and Education Foundation
CHAPTER 1

INTRODUCTION

1.1 Definition of the Problem and Thesis Statement

Throughout human history, space and society lead themselves reciprocatively in several ways. Particularly, society members transform the area to reach the most profitable, prestigious image with the consumption commodity (Baudrillard as cited in Yırtıcı, 2002). In this way, modernization and urbanization movements of this perspective have demolished the old assets, which seem as unaesthetic and needless. Globalization and neoliberal urbanism have been changing the contemporary towns in terms of significant financial, social, and spatial restructure for more than three decades (King, Graham, Madanipour as cited in Akkar Ercan, 2016b). Mainly, city walls, traditional housings, industrial sites, waterfront areas, streets, and squares have been destroyed.

Following this deterioration, individual memories, rituals were abandoned to fade away. Because of the culture of consumption society mentioned above, industrial sites have been turned into dangerous images (Ifko & Stokin, 2018). Industrial sites, located in the city center, are the most vulnerable heritage types all around the world, owing to having enormous sizes. These areas are getting destructed with the land demands of the shrinking cities (Berens, 2011). For these reasons, the unconscious local governments made industrial heritage conservation a hard issue. Due to the different expectations of the authorities and various parts of society, understanding the value of industrial heritage becomes hard. Therefore, heritage knowledge and remnants are changing uncontrollably and abruptly in time. That is why heritage buildings and sites are getting lost. Also, tangible and intangible assets of built heritage inject stakeholders’ sense of belonging to a broader community (Akkar Ercan, 2017).
In the 21st century, the extinction of industrial sites has increased. Though preservation of the industrial heritage network is a multi-dimensional concern with its political, cultural, social, and physical dimensions, the transformation of industrialization to de-industrialization leads to the loss of industrial sites (Köse, 2018). The left ones are under-risk of demolition because of the perception of these areas as useless. On the other hand, heritage environments are rich sources of understanding cultural diversity, generating a feeling of location, and building national identity and social solidarity (Al Sayyad, 2001). Also, tangible and intangible assets of built heritage inject stakeholders’ sense of belonging to a broader community (Akkar Ercan, 2017).

The heritage environment studies help to reveal the current relations of the city and to heritage stakeholders make reasonable plans, particularly for the under-risk areas as well as enlightening the technical, economic, and social changes of society and city in time (Xie, 2015). By this perspective, international organizations like UNESCO, ICOMOS, DOCOMOMO, TICCIH investigate the cultural assets in general concept since the 1900s. In addition, conservation of heritage is discussed respectively under the laws 5805, 1710, 2863, 3386, 5226 in Turkey since 1951. Turkish History Survey Society, ICCROM, ICOMOS, UNESCO, ÇEKÜL Turkey Union of Historical Towns, DOCOMOMO, Republic of Turkey Ministry of Culture and Tourism are the prominent organizations that play an important role in conservation issues in Turkey. However, there is not any legislation or organization and definition and conservation method peculiar to industrial heritage in Turkey. So, this gap or lack causes destruction problems in crucial modern industrial areas like Zonguldak central scrubber area.

The conservation studies for industrial buildings started to be discussed with the Amateur Historian article of Michael Rix in 1955. In this study, Rix proposes the term industrial archeology as the trace of production events that occurred in human history. The achievement of this article produces the Industrial Monuments Survey to define the industrial heritage and method to assess in 1963. For Turkey, the Ankara Maltepe Gas and Electric Factory opened the industrial heritage discussions with the
archeology term in the 1990s (Saner, 2012). At the beginning of the 20th century, the declaration of Nizhny Tagil Charter in 2003 and International Day for Monuments and Sites organized by ICOMOS under the industrial heritage concept in 2006 brought industrial sites into prominence in terms values. These sites are evidence of historical, human improvement activities, and they help to educate generations of people about their importance. Hence, there are many projects and studies realized with many aspects all around the world. Values and heritage sites are assessed in the national and international agencies while they are turned into cultural and economical consumption as a part of economic revaluation and place familiarization in a commercial aspect (Massey, Handal as cited in Akkar Ercan, 2016a; Berens, 2011). The sites are opened up to touristic activities so people can have a chance to familiarize themselves with the heritage value and past achievements (Xie, 2015; Berens, 2011). These economic events are also promoted with international platforms like ICOMOS (1999) to generate funding for conservation, to educate the community, and to influence policy. Moreover, research projects are gained importance for their profits. For instance, value-based studies and digital heritage platforms are developed to preserve and transfer the heritage to the next generations and regenerate it all around the world with the leadership of governmental and non-governmental organizations. As a result, while these works are based on the ground of raising awareness among owners, authorities and the public (Ifko & Stokin, 2018), boundaries of the tourism and conservation activities are restricted by the preservation of the benefits of host community (ICOMOS, 1999).
1.2 Scope and Objective

“We highlight the difficulties in securing funding and resources, the challenge presented by a perceived need for continual innovation and of persuading management and stakeholders to invest time and money into digital projects, noting that there is a clear demand within the sector for better evidence of the value of digital engagement with the past, in both economic and cultural terms.”

(King, Stark, & Cooke, 2016, p.77)

In this dissertation, an industrial heritage’s value relations between different site actors are documented and analyzed within the time by taking base the context and scale. The main research question is how to address the perception of industrial heritage value and its conservation problem within the meaning of the built environment by using creative presentation tools. The second question tries to reveal the necessities of presentation methods of the heritage area. The third question is how to manage value assessment in presenting heritage to people in a creative way. This thesis also discusses the reasons behind the need to transfer values of the cultural heritage through generations and to increase awareness of industrial heritage.

To sum up, this research aims to emphasize the importance of industrial heritage conservation and to raise awareness among stakeholders through revealing the perceived values within their political, cultural, social, and physical dimensions by using mapping techniques. As the type of a dissertation, design by research study is applied. Besides, the combination of the rhizome, layering, and concept mapping techniques are implemented to scrutinize the case. Within the scope of the literature survey, I extensively examined the earlier research such as the dissertations which were previously related to the industrial heritage of the Republican era and Zonguldak (Köse, 2018; Gündoğan, 2005; Kılınc, 2009; Işın, 2009; Çörek, 2018). From the previous studies, the mutual aim between paper-based and digital surveys is the
documentation of heritage. While research studies prefer to focus systematically and scientifically on the value evaluation, the use of online platforms like websites makes culture more understandable for the public.

On the other hand, in the creation process of the public platforms, documented knowledge of the research studies is obliged to be sorted out and simplified. Nonetheless, the well-represented websites that are produced by the research studies and simplified to make them public use cannot be reused and edited for further studies. In the resulting product, tourism concern is being forward. Even though they use creative technologies to make heritage visible and understandable, representation turns into short paragraphs, only distinguishing pictures with a base map or timeline. However, the research process and all historical information cannot be observed.

Moreover, comprehension of knowledge about site actors from past to present and the potential of communication between different actors cannot be possible. At this point, the gap between the research studies and online platforms about heritage causes both incomprehensible knowledge in the scientific field and limited and superficial information problems in websites. As a solution, the link between research and online platform make heritage visible together in scientific studies and public/authority sense with a creative presentation system. In other words, different actors in the society, including decision-makers on urban heritage and space, professionals from conservation, planning, architectural design, and future generations, can access the information about the culture sustainably through creative tools. As King et al. (2016) highlights, the digital world can make new proposals for whole actors in different ways. With this perspective, this research also proposes a framework in various scales, time, contexts to define the industrial heritage and the relation between values and actors by using a creative presentation technique in a multi-layered manner.
1.3 Theoretical Structure and Methodology

This thesis explains the process of the built environment’s formation as the outcome of a series of activities on a national and international scale. From this aspect, as the transformation of urban space is inevitable, local identity qualities change and evolve in time concerning regional and global contexts (Akkar Ercan, 2016a). For this reason, the theoretical framework of the thesis, which explains historical and spatial knowledge, starts with a literature review about industrialization and conservation and goes on the case study through a scale-based strategy, context, and value-based approach (Figure 1.1). Understanding the thesis project area is tried to be achieved by revealing the historical background of industrialization and modernism in different aspects and scales. In that point, survey techniques like literature, archival, and site investigate both the literature and case study. Before focusing on the case study, an explanation of mapping techniques or information technology within the scope of conservation and analysis method details the literature. In light of all this background information, the investigation of Zonguldak city reveals a history of ‘place’ by classification of contextual data in terms of scale and time. Afterward, archival and site research, as well as mapping analysis techniques, help to study the central scrubber area.
Figure 1.1. The thesis methodology made by author (2019).
Historical, political-economic, socio-cultural, and architectural-planning contexts are taken based on describing the literature. Historical context is about the particular events, society, and culture for physical and social settings, policy and economy for the economic structure and revolutions, reforms, significant upheavals, and incidents. Political and economic contexts are studied since the political state cannot be thought separately from the city development planning process. Thereby, it is essential to analyze the economic context of Turkey and the world. Social and cultural backgrounds, which are as functional as a physical structure, reveal the human life evidence of social upheaval and redefinition of the class system during the industrialization process (Palmer & Neaverson, 1998). These make the socio-cultural context an indispensable tool for researchers in the analysis of industrial archaeology. As the last context, architectural and planning information represents the evidence that surroundings form and give the story of the city. Besides to contextual documentation, the value-based approach is implemented (Figure 1.1).

Many ICOMOS meetings and studies bring the different parties and individuals together to set new decisions and strategies about conservation since the suggestion of a value-based approach by the 1979 Burra Charter by ICOMOS in Australia. On those meetings and charters, stakeholders have a chance to explain their concerns within the scope of values of heritage sites. While divergencies among stakeholders become apparent, they are incapable of implementing irremediable and unadvisable adaptations to the heritage site (ICOMOS, 1979).

As an extension of the well-collaboration case, the Zeche Zollverein complex in Ruhr region presents us with how a coal mining facility with its washery area transforms for public use and educates people about the production culture which is related the past values of society. Also, this project provides an excellent example in terms of similar land use with the thesis case project: Zonguldak Central Scrubber Area. On the other hand, many cases show a well-defined transformation of industrial sites into different uses. For instance, Santralİstanbul in Silahtarağa Campus of Bilgi University proves a change of the Ottoman Empire’s first urban scale power plant into a cultural
facility with a museum project. Another example is the faculty building of Kadir Has University in the Cibali Campus, which exhibits a well-defined transformation of an Ottoman Tobacco Factory into an education facility. Even though the heritage-based projects have increased in time, reflections of both collaborations of stakeholders and industrial heritage concepts are the lack in the Turkish scenario. The conservation studies made in heritage sites focus only on the plot scale while there is a need for a region-based approach. Also, the industrial heritage projects do not include the value assessment despite the constructivist aspect of this approach. This type of study can reveal the mutual and opposite notions of stakeholders. From this perspective, Zonguldak gives a clear case of the Turkish conservation problem as an industrial city. Because of contradictions between local and central authorities, Zonguldak Central Coal Washery and its surroundings have been decayed since 2006. Even if the site was registered as protected, there is a lack of management plan about the future. So, the site has a considerable level of vulnerability to distinct and controversial projects proposed by different parties.

As in the Zonguldak case, in the lack of communication problems among parties, heritage sites are under the risk of demolition and being lost. Hence, revealing the values and exploring different perspectives of parties become an incentive and preferable approach to prepare a substructure of common ground among stakeholders for future studies. Besides, this type of plan is useful to prevent the lack of sense of belonging, particularly for under risk areas, as stated in the previous discussion (Poulios, 2014 and Mason, 2002). By taking base this point of view, implementation of the value-based approach helps to understand, document, and reveal the relations between actors and values of Zonguldak central scrubber area, as a prominent industrial city of Turkey. In this approach to heritage conservation, documenting the meaning of the site is the inevitable part of examining the value (Fredheim & Khalaf, 2016). So, values are revealed and classified according to their origin as existing and perceived in the following phase, site survey. Existing values have evolved from the archival data of the site. On the other hand, perceived ones have emerged from the
experiences of users having an organic relation with space. In the thesis, the appendices document the essential archive documents like master and building plans, registration reports, construction decisions, technical drawings. Also, the translations, interview questions with transcriptions\(^1\) and further studies can be found in the appendices.

Before revealing the perceived values, a site survey, which comprises both recording the general characteristics of the area and its surroundings by photographs, notes, and in-depth interviews, has been conducted. Previous studies of Sepe (2013), Işın (2009), Uzunoğlu (2008), Çalhan (2008) help to construct the structure of the interview. For the classification of actors, Harrison (2013) proposes archeologists, practitioners, state officials, local stakeholders, academics, while Bandarin & Oers (2014) associates governments, local authorities, public service providers and the private sector, international organizations, national and international non-governmental organizations. Briefly, in the study, the attendants are site workers, decision-makers, and experts of the historical place. As an extension of the site survey, a series of interviews, a part of mixed research method, has been planned to reveal the perceived values. The main goal of the meeting is to understand the experienced history of the site in defined contexts mentioned before and to analyze the discrepancies and compatibilities between archival and site surveys.

The in-depth interview is conducted with three different groups and ten people in total in a semi-structured plan. The profile of the attendants composes of three categories which were site workers, researchers, and decision-makers. Also, questions have three topics; socio-economic, socio-cultural life in Zonguldak, and the relationship among washery area, harbor, and railway. In addition, the order of questions changes spontaneously to protect the neutral tone and fluency during the interview. Open-ended questions reveal the different reactions and find more information.

\(^{1}\) The eight of them is added in the transcripts. Also, there is omitting of irrelevant or out of context sentences and some words which present personal identity.
On the other hand, this type of conversation can cause limited and lack of information about the site. The limitation is here keeping the scope of the interview in specific subtopics and asking critical questions for each attendant. Also, defining the duration from thirty minutes to one hour at the beginning of the meeting was another strategy for keeping in scope. Two principles (Krefting, 1991) play a vital role in terms of interviewer, naturalistic behavior (influenced by physical, socio-cultural, and psychological environment), observed behavior by the investigator (subjective meanings and perceptions).

Moreover, internal validity is essential in the study because of the qualitative nature of the interview. First, control or randomization questions make internal triangulation to provide data accuracy since the trustworthiness of answers is crucial. At this point, the triangulation strategy provides the internal validity of the quality of research by asking similar information in different parts and different ways (Krefting, 1991; Lincoln & Guba as cited in Hsieh & Shannon, 2005). Second, specifying the target group, duration, question tips, and applying interviews to a different person is essential to define group limits. Third and last, the information provided by the attendant should be compatible with other responses and archival surveys.

After describing the differences and similarities of actors and the changing values within time by value-actor relation, the creative mapping technique presents the analysis outcome of the value-based study. So, the methodological approach to modern industrial heritage urban sites of similar cases has planned with the complex mapping outcome of this dissertation.

In conclusion, the proposed methodology of the dissertation helps to reveal the effects of mechanization within industrialization on socio-spatial and socio-economic identity after the 1950s and to increase the awareness about the preservation of industrial heritage in Turkey. In revealing the relations, historic environments have tangible and intangible references connecting the past, while past users have a sense of continuity and place attachment. From this perspective, investigating the perception of
stakeholders with the existing values of the Zonguldak central scrubber area offers a clear definition of industrial heritage and the potentials/boundaries of industrial asset conservation in Turkey. Lastly, this thesis differs from previous studies in terms of proposing creative value mapping analysis of an industrial heritage case.

1.4 The Thesis Structure

The dissertation consists of seven chapters, respectively, going on the conceptual framework to the praxis of industrial heritage. The study begins with an introduction that explains the subject, scope, aim, and method. The following three chapters explain the literature review. Chapter two, titled by industrialization and conservation of industrial heritage, presents four subtopics. The first section explains the background of industrialization and footsteps of heritage idea within historical, political/economic, sociocultural, and architectural/planning contexts in the world and Turkey scale. The second section examines the definitions and organizations in heritage conservation, which draws the semantic relations of terms with their actors about conservation. The third section presents industrial heritage organizations and their scopes to grasp the historical development of organizations and their studies, afterward; by exemplifying them with ERIH and National Parks Service² studies. Finally, the fourth section concludes the literature review with an industrial heritage site in Germany: Zeche Zollverein Complex. Chapter three determines heritage conservation approaches by three aspects, which are material based, context-based, and value-based approaches. Chapter four focuses on conservation through information technology by explaining the conceptual background and the most known creative mapping techniques. In the following chapter, the methodological framework of the case study, including the proposed value-based approach and analysis of site survey with creative mapping techniques, is explained.

² The website of the study is https://www.nps.gov/index.htm.
Chapter six focuses on the Zonguldak central scrubber area documentation as the case study of this research. This chapter comprises of four subtopics, respectively. As first, the contextual background of Zonguldak and the site is examined within four contexts, as defined in the context-based approach studies. Second, the value based history of the Zonguldak central scrubber area documents existing and perceived assets. Third, mapping analysis of the site survey helps to discuss the outcome of the creative mappings of the case. Finally, there is an evaluation of the importance of the study. The last chapter, the conclusion, summarizes the study and states the findings of research and documentation. Also, it explains the contribution to literature and further research.
CHAPTER 2

INDUSTRIALIZATION AND CONSERVATION OF INDUSTRIAL HERITAGE

2.1 Background of Industrialization and Footsteps of Heritage Idea

2.1.1 Industrialization and Deindustrialization

Revolution of the eighteenth century, and coal mining was a huge industry in 1900, providing over 200 million tones of coal a year that served as a fuel for the steam engines which provided the power for most factories, for the locomotives which worked the country’s railways, for the merchant marine and fishing fleets, for gas production, and increasingly for the generation of electricity.

(Stratton & Trinder, 2016, pp.19-20)

Throughout human history, the economy dominates the way of life, the physical environment of societies all around the world. In another way, monetary relations have made countries reach the highest innovations and civilizations. While enterprises cause new technology and huge investments, sometimes the reason for researching sources or having the best economy result caused world wars. Both innovations or rise and wars or fall are framing the behaviors and movements in socio-cultural life, architecture or planning, industrial or production sector, and economy. Starting from the 18th and 19th centuries, the first footsteps of the industrial revolution dominated both the scale and the production system of goods all around the world in different scales and times (Xie, 2015). As early developments, England's and New England's mill buildings of the 1700s have begun to be seen as the germ of industrial structures (Berens, 2011). However, the first enormous breaking point was the industrial
revolution at the end of the 18th century. Mechanization in the excellent production process led to reach a high number of products. In this way, the small-scale industrial sector of countries turned into large sizes in the first period of mechanization called the pre-steam era between 1840 and 1850. At those times, the development level of a nation was assessed with the number of its employers and having high standards in the industry (Ersoy & Şengül, 2001). Eventually, a brutal race began among countries. The most significant case showing this grand competition among countries was the international and national exhibitions in which countries demonstrate their latest innovations by using architecture and technology at specific years in different cities. 1st International exhibition, named "The Great Exhibition of the Works of Industry of all Nations, was organized in Crystal Palace, being evidence of the miracle of the British iron steel industry in London in 1851.

Meanwhile, the textile industry, mainly silk factories, became prominent in Turkey during the Ottoman Period. Almost all manufacturing studies met the needs of the military and free market with the full financial initiative of the government. Empire had the main power to dominate the sectors and was responsible for innovations. Even though Selim III brought new production techniques into the country between 1793 and 1794, the industrialization started from the agriculture sector by using modern equipment in the 19th century (Quataert, 1999). Steam production and transportation network helped to enhance the commercial chain, particularly the textile trade (Quataert, 1999). As in the European countries, a considerable amount of industrial production made the empire enlarge its market from national to an international scale. Noticeably, the internal market opened to Europe and foreign investments (1820-1853) with globalization (Çörek, 2018). Since 1848, local firms and state produced and sold raw material (Quataert, 1999). Also, industrialization in port cities like İstanbul, İzmir, Zonguldak initiated in small scales. However, external debt and economic dependency on foreign trade have been observed between 1854-1876. Even the consolidations on the industry could not succeed (Önsoy, 1984), and economic
stagnation happened (Çörek, 2018). Afterward, the economy had grown until World War I.

To sum up, if a periodization needs to be proposed to understand the industrial history of nations or the world, it can be said that 20th century differs from 18th and 19th century in terms of the leading developments that have distinct character stemming from intricate combination of technological progress, political ideologies and cultural values (Doordan, 2002). Even though modern as a term emerged with the enlightenment and continued as an art movement in the 19th century, the reflection of modernism on the economy, social life, and architecture/planning equals to 20th century with the massive effect of the industrial sector. Therefore, industrialization in this period is studied with modernization ideas by changes in the economy-policy, architecture-planning, and social-cultural structure of countries and inhabitants. On the other hand, industrialization and modernization were continued in an unusual process in the 20th century. At some term, rapid urbanization and brutal race in the economy were observed with the help of incremental profits and innovations, while abrupt or continues breakdowns happened with a series of activities between nations at other times. Additionally, even the effects or types of actions vary from region to region; some overlap or parallelism exhibit that instant or huge events make economic, planning, and social contexts of countries in a similar way. Consequently, examining the 20th century in light of the timeline made in different contexts is essential to understand the current situation of industrialization. From this point, Doordan’s timeline (2002) will help to understand the economic, technologic, social, and architectural-planning relations for the world scale while the timeline of Akcan & Bozdoğan (2012) guides us in matching and understanding the Turkish modernization story. Doordan (2002) focuses on the architecture of the 20th century as well as the ideological and social background of industrialization from a modernist perspective. He interprets the modern history of the world in three phases by taking base the fractions on technological, political, economic, social, cultural, and architectural planning structure. For Turkey, Bozdoğan and Akcan (2012) propose a similar three-
stage modernization timeline to Doordan by starting from the foundation of the Turkish Republic. Here, Sönmez’s proposal (1999) for the Turkish economy gains importance to compare both modernization ideas and economic relations in the world and nation scale. All timelines have some overlaps with the world scale scenario, as mentioned before (Figure 2.1). First Turkish modernism was guided by its history of economy. Second, considering the late meeting with modernism, the Turkish timeline followed and was affected by the world modernity. Third, world modernization is guided parallel to economic activities, international collaborations, and wars. To conclude, the literature review about industrialization is structured under three periods, which are respectively birth, prime, and a fraction of modernization. This section reveals the history of both the international context and modernization of the Turkish industry as well as the built environment. In this type of explanation, the birth of modernization refers to a confrontation with the new world and facing up to its effects. The prime period symbolizes the upheaval of economy, social life, and urbanization story. There is a considerable amount of power of modernism in the formation of industry. The last era, fraction, presents the downfall of industrialization with its built environment. Also, it explains the emergence of conservation issues in industrial assets. Therefore, the heritage idea is discussed in the following part of this section.
**Figure 2.1. Modernity, Economy and Heritage Organization Timeline.**
2.1.1.1 Birth of Modernization

From 1900 to 1940, the first confrontation with modernity created both pure modern and classical attempts in urban, architecture, civil life, industry, and political floors. The first modern period of industrialization affected the way of life and proposed a new or modern lifestyle by producing its architecture and urban form increasingly in the 20th century. The cities started to be formed with industrial facilities that were constructed mostly in city centers by virtue of easy marketing. Factories with their auxiliary buildings were formed as complex or site. Social-cultural and accommodation units were designed near the facilities. As the nature of things, this situation created its own city form. In short, the economy forms both industry and architecture or urban form. All industrial structures, even the first mills, are the pieces of evidence of architectural experience of the era in terms of reflecting building technology of their time (Berens, 2011); therefore, examining the architecture of these buildings is worth it. Industrialization produced its own buildings and sites in various styles and sizes. Early modern architecture has an organic relation with the industrial forms, materials, and aesthetics (Berens, 2011). It can be said that the need for space is met with the current technology, and it creates a period-specific style. For instance, scale and material are the prominent effects of the buildings with repetitive forms and rhythmic openings (Berens, 2011).

At the beginning of the 20th century, some countries became the pioneer in the development story with changing equilibrium among them. While British power was the initiator, afterward US, Italy, French, and German attributed to the competition. That led the countries to find new raw materials from other territories and to be the leader of the market economy. Specifically, the coal industry had gained importance with the need for energy of steam-powered machines and tools since the discovery of mining energy’s capability. Consequently, the 1st World War occurred and resulted in huge devastation, particularly on the countries that formed their economic policy as to base on the industrial sector. This may be the reason why some of them have affected a large scale from the abrupt falls. After the war, countries began to heal their
economies, and reconstruct destroyed urban fabric. Enormous, fascinating, and bewildering buildings were constructed all around the world (Doordan, 2002). This transformation was also seen in the socioeconomic structure by which a new world was established. The economy shifted dramatically from agriculture to industry.

By risen economies in countries, the population has reached its peak points in the city centers. This led to the emerging of new city planning models, one of which is the Concentric Zone Model of Ernest Burgess3 (1925-1929) (Figure 2.2). This model is based on a study of the form of Chicago, US. It suggests a land-use composed of a socio-economically defined form of 5 rings around an urban core. The core, known as the central business district4, has the highest land prices, full of commercial tallest buildings with the densed urban form and accessible transportation network. The second zone functions as a transition zone or industrial area that has both residential and commercial activities. During industrialization, this ring used to be factories and their secondary facilities. The main advantage is closeness to both CBD and accommodation. The workers live within this zone or third zone, inner city-working class region. This zone is preferable in terms of serving the lowest bills and accessibility to the working area. The last two zones, unfortunately, do not provide proper public transportation, so middle and high-income level groups prefer to live here. On another side, open spaces, markets, and large parks are the common facilities, and houses are bigger due to low land values. Briefly, the morphological city model of Burgess fitted the modern industrial cities’ socioeconomic structure at the beginning of the 20th century.

Moreover, one of the outcomes of the modern era was a free market that caused less governmental control on trade and economy. However, the potentials and risks were not known and facing the modern economy resulted in world wars and economic crises. For instance, the liberal economy of the US Stock market collapsed drastically

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3 Ernest Burgess (1886-1966), a Canadian-American urban sociologist, graduated from urban sociology master studies of Chicago School.
4 Central Business District is named as CBD, which consists of main commercial activities in the city.
in 1929, and economic effects continued on the rest of the world in the following years. Afterward, the name of this decline would be called The Great Depression. Besides the decrease in supply/demand, the production of the industrial sector was broken. Especially German society suffered from the conditions of this depression as well as the reflection of the 1st World War. This economic situation has led some countries to turn back into the nationalist view.

In the first decade of the 20th century, Turkey had lived hard times due to the effects of war and the fall of the Ottoman Empire, so the industrial activities had almost stopped. For this reason, Turkish modernism starts with the foundation of the Turkish Republic in 1923. As a result of the establishment of a new country, the social, economic revolutions and reforms have been initiated, and economy policy had changed into statist approach by the new government (Sönmez, 1999). A considerable amount of incentives was provided for agriculture and trade, although the lack of manufacturing industry (Sönmez, 1999). Following this view, new development scenarios were discussed, and increasing the investments to the industrial sector as much as agriculture was seen as the main way of catching contemporary countries up. In that period, the İzmir Economic Congress that organized by the attention of 1135 delegates from industry, merchant, worker, farmer people in total between 17 February and 4 March 1923, was the milestone of economic growth of Turkey (Koç, 2010). The main aim was to plan a general development plan which affected the economic policy of Turkey until 1931. The decisions in the industry have led to the physical and economic existence of industrial sites directly. The main decisions in that aspect are (Koç, 2010); high tariff for export and free tariff for imported goods (realized after 1929), incentive implementations for industry and businessmen, affordable prices for the transportation of goods and improvement of the transport modes, convenience loan options for industrialists, enhancing the training of technical personnel in industrial sites and establishing necessary institutions for this.

There are other topics mentioned in congress by industrialists like founding an industrial bank, particularly for the loans. As Fethi Okyar said, the foundation of an
Industrial Development Bank was discussed for the first time. Later, the Turkish Industrial and Mining Bank of Turkey was founded in 1925 as a result of the İzmir Economic Congress. Worker’s Bank was established by the cooperation of deputies, merchants, and tradesmen in the following year. The bank was responsible for managing the Ottoman factories and initiating the new factories as well as receiving and operating mining privileges in oneself or by participation (Düstur as cited in Koç, 2010). Also, the first stage of the political decision of the mixed economy was put with the supportive implementations for the private sector in congress. Moreover, 1927 The Law for Encouragement of Industry was used until 1947 (Sönmez, 1999). According to law, public foundations would choose national products; also, low taxes for industrial lands, cheap raw material, free tariffs for the export product, low price for product transportation would be provided. These acknowledgments were followed by the First 5 Year Economic Plan that was important for the planning economy in 1929. In the same year, unfortunately, the Great Depression affected the Turkish economy by turning to protectionist industrialization (Sönmez, 1999). It meant that incentives to Turkish firms for agricultural and mining export in addition to a series of constructions in like railway transportation, iron industry. Also, economic controls and planning in the hands of a highly centralized government often extending to government ownership of industry were controlled. Further, the economy for domestic producers through restrictions on foreign competitors was guarded (Çörek, 2018). Nevertheless, the economy suffered in 1931. The industrial incentives and factories were transferred to the Industrial and Credit Bank of Turkey in 1932, and they were supported by Sümerbank after 1933 (Zarakolu, 1973). Following year, the first 5 Year Industrial Plan was approved, but two years later, the Second Industrial Plan (20-24 January 1936) was discussed for both mining situation and proposed improvements (Afetinan, 1989). One of them was to establish an iron factory until 1940 in Karabük (Afetinan, 1989). Besides this economy policy, the socio-cultural structure had transformed the modern style. The rights of women were extended, and art/cultural activities were promoted in the city center. Various education and research institutes
were opened to reach the highest social standards. The educated population and immigration to cities increased.

Welcomed German and Austrian and Turkish architects designed masterplans of many undeveloped cities as well as industrial sites. Mostly public and governmental buildings were constructed through important boulevards of the cities. For example, 1st master plan of Ankara (1924-25) was planned by Carl Christoph Lörcher from Berlin. In this plan, the aim is to rehabilitate the old city around the citadel and to construct the new city in the south so the diagonal grid of streets, large urban blocks were seen along the north-south axis (Şenyapılı, 2006). In the 2nd plan of Ankara, Herman Jansen combined both the aesthetic quality of Camillo Sitte and the preservationist approach of the Garden City of Ebenezer Howard. In this plan, the city was thought as healthy and modern with four concepts which were transportation, free areas for recreational activities and sports, community buildings (public, governmental, educational) and residential areas from the low income in the north to the upper income in the south (Şenyapılı, 2006). Through all concepts, belts of green spaces linked all these different functional zones. In that period, traces of classical Ottoman, French Beaux-arts style were experienced as 1st National Style called by architectural historians (Bozdoğan & Akcan, 2012). Arising reason for Ottoman Revivalism was similar to Gothic Revivalism, which was turning back to religious with a new architecture. Within this perspective, the architecture of revolution had introduced its own icon consisting of a long horizontal block with a rounded at the end both, which intersects with a prominent vertical element. This typology was used in a different type of buildings regardless of their function. New Exhibition Hall (1933), Water Filter Station of Çubuk Dam (1936), and Casino Restaurant of New Railway Station (1937) were examples of this typology (Bozdoğan & Akcan, 2012). When it is considered that 80 percent of the population was living in rural areas in the 1930s, the main aim of the Turkish revolution was civilizing, imposing modern ideology, and increasing agricultural productivity. Therefore, model villages, factory towns were constructed throughout the country. The dissemination of modernity to all motherland
purposed secular education, agricultural reform, and scientific farming with Peoples’ Houses and with a comprehensive village program. Kemalist Revolution had a dilemma that was national or Fascist, good or bad from 1938 to 2nd World War. These critics had raised from the monumental modernist instances of 18th – 19th century Ottoman Architecture. The close relations with Germany and Ottoman’s minorities had a substantial effect on the monumentalism.

To conclude, all innovations were continuously programmed and realized in Turkey. As a parallel to the national scenario, world modernism continued to be evolved with the increasing economic conditions. Nevertheless, 2nd World War has emerged because industrial countries believed that they will find new resources by expanding their territories, and thus they will improve their economies and that they will get rid of the effects of the First World War.

2.1.1.2 Prime of Modernization

The world modernism turned into a real hegemony between 1940-1965 since many European countries were under the war, and the control of the system was in one hand naturally. Not only the British also the rest of the world, but the process of industrialization also continued approximately in the same way. After the war⁵, the improvement in the industrial sector was hard because there were dramatically damaged cities, industrial sites needed to be reconstructed rapidly in large numbers. To do this, governments had the main power to dominate the modern life and production system. While the modern image bombarded daily life by advertisements, produced automobiles, way of transportation, etc., particularly, enormous fascinating and bewildering buildings were constructed all around the world at that time (Doordan, 2002). Particularly, the industrial sector had gone under a series of

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⁵ In spite of huge its devastation, industrial sector met the needs of money, energy, and weapon of both World Wars (1914-1918; 1939-1945). Namely, the improvement story was evolved around the wars.
developments, and the number of productions had reached its peak with the end of the war. The founded organizations such as UNESCO, European Coal, and Steel Community in national and international scales were also a significant factor. This golden era had some consequences in social life and urban form.

![Figure 2.2. The modern era urban land use model proposals.](image)

The liberal economy of this period designed its own urban form, social life, and production system sensibly. For instance, the disadvantages of Burgess’s model were developed by Homer Hoyt’s Sector Model (1939) (Figure 2.2). He indicated the city was rising in 6 socio-economically defined sectors or wedges, expanding along the

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7 Burgess’s Model led inaccessibility problems between zones. The highest and mid income level had some difficulties to use the transportation and to reach the work in the longest time. Also, the capacity of zones did not meet the needs of increasing population since zones of model were not suitable to extend in itself. Hence, the shrinking city problems occurred.

8 Homer Hoyt (1895-1984), an American economist, graduated from law school of the University of Chicago and studied Phd in land economics in the same university. Dr. Hoyt worked for the Federal Housing Administration from 1934-1940 in which he developed a system for assessing the areas of cities which were best for investment by mapping city stocks using a variety of socio-economic indicators (age / value in housing, occupancy of inhabitants, overcrowding).

9 They are CBD, transition zone, lower, middle- and upper-class residential zones and industry.
conventional roads of communication. The main attribution is that the extension of zones and division of classes sustain their activities within their regions due to the proposed form. The second distinction is that the lowest income level as the working class and industrial sector are settled along the railway or river to decrease the problems on productional and public transportation. The golden age of industrialization (1945-1957) owes to this transportation idea. Conversely, the section model caused a heterogeneous development meant that the formation of one part of the city is industrial while the other side is rural. The other effect is arising suburb shopping centers serving middle and high-income households. Briefly, this model has little relation with the physical environment, and the growth of sectors can create problematic leapfrogs.

Following these ideas, a new urban land model, Multiple Nuclei Model (1945), was proposed by C. Harris and E. Ullman10 (Figure 2.2). This model considered the city as a combination of multiple centers surrounding by various types11 of economic activity. Multicentricity, which is characterized as the development of more than one urban center in a particular area, refers to the spatial decentralization and mobility of the various centers of urban socio-economic activity. The main arguments of the model are the prevention of the accumulation of functions in a number of centers, the promotion an advanced system of public transportation and thus minimize urban traffic, the reduction carbon emissions and contribution to the improvement of climate change and lastly the promotion compact and intelligent urban forms, where urban spread does not require a large number of open areas and parks. In terms of weaknesses, ignoring the building heights, abrupt transition or splits between zones, highly unbalanced density, adaptational failure to various topographical, cultural, economy policy conditions, and unawareness of the effect of physical aids and

10 Chauncy Harris (1914-2003) and Edward Ullman (1912-1976), modern American geographers, studied at the University of Chicago. Their model was mentioned first time in their “The Nature of Cities” article in 1945 and again based on the formation of Chicago city. This idea was developed in the growth scenario of the city.
11 CBD, outlying business district, light, and heavy manufacturing, low, middle, and high-class accommodation, residential and industrial suburbs.
government policy. Despite the limitations, this model opened minds for the future of cities and alternative lifestyles. Cities faced with land problems emerging by immigration and increasing work activity, so shrinking cities in which the highest demands to the building plots increased their economic value started to become. The sustainable growth of cities became the main topic of governments.

With the 14 May 1950 election victory Democratic Party, Turkey lived its first experience of democracy on the economy, social life, and architecture that national modernism turned into the international era and an intricate transition period from a hegemonist state to pluralist administration started (Bozdoğan & Akcan, 2012). Turkish economy focused on planned industrialization with new sectors like auto, glass, food, house machines for 1950-1980 (Sönmez, 1999). Moreover, the liberal foreign trade was supported to follow the European economy and to strengthen the economic relations by the law of encouragement to foreign capital between 1947-1953 (Sönmez, 1999). At those times, mechanization phases in the industrial sector were begun. The hard conjuncture made the state took a protectionist attitude on foreign trade between 1954-1960 (Sönmez, 1999). Besides, Turkey Industrial Development Bank, which was talked in İzmir Economic Congress, was established in 1954. The increasing industrialization and mechanization of agricultural production had triggered major cities to grow between 1946-80 in Turkey.

With Marshall Aid, the mechanization in agriculture, the industry was implemented. The new factories, industries were initiated. Rural people lost their works. This situation concluded with immigration from rural to urban to find work. The limited number of houses did not meet the needs of the housing of city newcomers. Prevalent informal settlements or squatters became the most important problem of urban planning. According to Bozdoğan and Akcan (2012), there were two criteria to locate the squatter settlement, which are closing to city service, job opportunities, and coming from similar regions: community network. Second, for low and upper-middle-income class, there were many apartment blocks by unknown designers. Because people had to buy the land to have an apartment house, but the land prices were high
to purchase for middle income. The informal residential areas were tried to be controlled by many policies from time to time or rejected by architects, scholars due to their low health, safety, aesthetic conditions. With the condominium law, the middle class could afford to buy their own floor space. In this way, cities had been transformed into the free-standing block, squatter settlement, and small-conductor apartments from garden city idea. Furthermore, the uncontrolled constructions made these buildings unsafety. After major earthquakes, the government put a law about squatter settlements and small contractor apartments in 1966 to regulate the construction process in a safe way. In that law, there were three main decisions that they were improving the suitable houses, demolishing the unhealthy houses, and prohibiting the new possible houses. However, still, the laws and praxes can be discussed in many ways, architecturally, socially, and economically. In addition to these, highly qualified architecture projects were continued. Here, while early republic focused on government complexes, educational buildings, and cultural institutions, the democratic republic constructed the private sector via hotels, offices, shopping centers, commercial and recreational projects, taller apartment blocks. In this transformation process, the American modernization theory was dominant with the international style continued with Le Corbusier’s effect.

After a while, hegemony was broken with the increasing needs of consumption society about 1965. A new era, pluralism (1965-2000), was introduced in which various types of buildings, lifestyles, ideologies were common. On the other hand, new technology was developed, and the infrastructure of existing industrial sites did not meet the needs in number and newness, and the value of plots was high too that investors could not pay. As a result, initial industrial buildings or sites of the 20th century started to be removed, demolished or abandoned. In this way, a new era, deindustrialization, had begun. The universal city and economy infrastructures were constructed in the 1980s. The main difference from the industrialization period was that social, economic, cultural life, and the urban fabric was distinctly separated from the industry or production cycle (Canaran, 2009). Particularly, steel, shipbuilding, heavy engineering,
textile factories, known as the smokestack industry, were abandoned with the introduction of information technology. However, the links of the process among local identity, physical environment, and market were disintegrated. The production buildings continued their existence, but the effect or relation on the formation of other elements of cities and life was not observed. So, with the process of deindustrialization and privatization of industrial sites, the world entered a different period in terms of social, cultural, economic, and planning relations. The distances between cities, nations, and cultures decreased. Economies of the countries became open to the world that means liberal and plural economy. Instead of having a single country having every sector in the world economy, there was a shared sectoral distribution among countries. To illustrate, though the first industrial traces were seen in Europe by introducing machinery and manufacturing techniques, starting from the 1960s (1980s for Turkey) deindustrialization attempts are followed by replacing old manufacturing techniques with the information technology and outsourcing the manufacturing to less-developed countries under reindustrialization (Ersoy & Şengül, 2001; Xie, 2015). New, less industrialized regions were formed with computer-based high technology. The difficulty of transformation or destruction of 20th-century industrial sites due to their austere geometric forms and massive existence raised different questions and problems in different platforms since the end of the 20th century. The proclaim is that they are the witnesses of a brave new era of technology and rationality (Berens, 2011). The opponent argument is that these areas create environmental pollution in the city center and are not profitable economically. As a matter of course, a reindustrialization process, producing a creative industry, goes on, or dramatic destruction of one evidence of the community’s history will occur. The future depends on consciousness, culture, and studies about protection. Under the territorializing topic, during the 1980s, as an extension of ideological presentation, urban transformation projects became the popular topic of local authorities with the globalization so that the city can subsist its existence and economy by marketing its physical environment with them. The industrial sites had begun to change into profits of the tourism sector.
After 1960 Turkish coup d'état, the state policy became a socio-democratic era. A series of laws and rights were initiated in the economy, architecture, and social life. Akcan & Bozdogan (2012) illustrates an intense upheaval period, 1960s military hegemony, with its architectural implementations in Turkey. The first (1963) and second (1977) 5 Year Development Plans were developed respectively by focusing on fundamental investment in infrastructure, employment, reorganization problems and by making the industry the driving force in the economy (Sönmez, 1999). 1970 Turkey Economic Depression has occurred.

During the 1960s, architects became an actor in the political spirit thanks to the activities and power of the Chamber of Architects since 1954. All academic studies and meetings under the Chamber of Architects in the time of Haluk Baysal’s directorship began to integrate the political subjects with architectural, urban professions during the new state-sponsored developmental process. After Vedat Dalokay became the new director of the association, architects intensely were like a political party. Then, as critics were increased, plural ideas led to be fragmented both politically and architecturally. According to Akcan & Bozdogan (2012), architects had a right to declare their ideas about architectural/urban interventions though just against to Menderes government. There was a distinct separation between the elite, bourgeoisie, and working class in terms of lifestyle and housing. Turkish architects had an ambitious desire to design the ideal modern house for the upper-income group as independent from the government factor. Besides practices, the journals like Arkitekt, Mimarlik, Akademi, Mimarlik ve Sanat guided the architects and defended a new theory: actual regionalism, which helped architects not to copy form from the West and consider environmental conditions during the design process (Akcan & Bozdogan, 2012). In addition to architects’ gain in the political area, other disciplines integrated with architecture also came together around YEM or Construction Industry Centre in 1967. YEM provided construction systems fast, affordable, and efficient with standardized materials and repeatable procedures. Tekeli and Sisa’s Lassa
Factory in İzmit proved this highest quality with its human scale ventilation pipes on the facade.

2.1.1.3 Fraction of Modernization

At the end of the decade, American modernization theory collapsed with economic difficulties and military intervention. After 24 January 1980 Economic Decisions, the technological advancements were tried to be perceived for the sake of national prosperity and way of development. Consumptionist industrialization was followed by a commitment to foreign industry and trade, light and modification, or assemblage industry (Sönmez, 1999). However, the latest Turkish coup d 'état happened by changing the relations of each production sector and way of architecture, social life (Bozdoğan & Akcan, 2012). Also, IMF or International Monetary Fund made difficult the self-sufficient development and financial autonomy. With the 1983 elections, all urban architecture platforms in academy, society, and policy, were redefined by Özal's liberal ideology. Turkey transformed its agricultural and forest areas into private-sector construction sites. Within the years, the transnational urbanism instances called post-modern have begun to pop up throughout the country. While modernism had a productive approach as a lifestyle and spatial, postmodernism promises people a way of lifestyle and spatial use, which are based on consuming. After 1991, the privatization and liberal industry became the main economy policy (Sönmez, 1999).

Between 1980-2000, transnational urbanism was the main agenda with the impact of globalization, the rising of political Islam, and the effect of a post-modern architectural style followed by the post-modern landscape and its building environment in Turkey (Bozdogan & Akcan, 2012). The perception of architecture has turned into a profession by taking based on the plurality, fragmentation, reorientation of modernity in urbanism. After 1980, the prevalent situation of squatter houses and small contractor apartment buildings came up social responsibility issue into discussion among architects. The real estate market was formed by big construction firms such
as TOKİ or Housing Development Administration of Turkey in 1984. With the help of bank credits as the economic support, TOKİ constructed many social housing projects to solve accommodation problem in the seven climates. However, they had lack of relationships with the context in each scale. Besides mass housing, tourism facilities and gated residential were other construction sector. Tepe Nar City residential project was designed as gated community by Nevzat Sayin in 2005-9 in Istanbul. Also, the Ataman Hotel was composed with the surrounding restored houses in a harmony by Ertan Engin in G"oreme (1985-95). Briefly, rather than using the same geometry of traditional buildings, trying the variations of the elements and enhancing the space quality with the elements would end up with the success in post-modern interpretation. In addition to these cases, particularly in 2000s, shopping center culture has been emerged as the small-scale example of the closed city. Without going out, every function of the city can be realized inside in safety and cleanliness but in a private-public space (Bozdoğan & Akcan, 2012). Lastly, secular republican identity has been declined with neo-Ottoman buildings like Kocatepe Mosque in Ankara (1967-87). This mosque, with its repeated Ottoman elements and shopping mall on the ground floor, was a good portrait of the architectural space of the new religious, neoliberal society of post-modern Turkey. In contrast, Turgut Cansever preferred to use the abstraction of the elements of the Ottoman mosque in the Parliament Mosque in Ankara (1989) as an innovative and non-traditional building. In the renewable urban period, Silahtarağa Electricity Power Plant and its Distribution Station were transformed into a university campus and museum, SantralIstanbul by the partnership of Emre Arolat, İhsan Bilgin, Han Tümertekin, and Nevzat Sayın. It is a successful project for the adaptation of industrial heritage.
2.1.2 Heritage Idea

The industrial heritage is highly vulnerable and often at risk, often lost for lack of awareness, documentation, recognition or protection but also because of changing economic trends, negative perceptions, environmental issues or its sheer size and complexity. Yet, by extending the life-cycle of existing structures and their embodied energy, conservation of the built industrial heritage, can contribute to achieving the goals of sustainable development at the local, national and international levels. It touches the social as well as the physical and environmental aspects of development and should be acknowledged as such.

(The Dublin Principles, 2011, p.2)

Initial conservation studies that based on structuring the preservationist attitude, specifying principles/methods, and forming a legislative/organizational basis, started to be seen and dominated particularly by Italy, France, and United Kingdom in the 19th century. Generally, these studies were about ancient civilizations and artifacts, so archeology has gained importance as an outcome of this process. In order to put into a legislative ground of the excavations and the restoration/preservation of findings, Restoration Charter (Carta Del Restauro, 1931) was declared by Board of Antiquities and Fine Arts in Italy after the First International Congress of Architects and Technicians of Historic Monuments had concluded with Athens Charter on Restoration in 1931. In the nature of these things, heritage idea began to develop. Besides archeological works, a modern life with the improvement of technology has led to the extension of the scope of heritage. Following to new settlements, the local architecture/settlements and cultures were recorded as the new heritage assets by many organizations. In Turkey, the initial heritage protection was seen as legally with Law No: 5805 by the High Council of Real Estate Antiquities and Monuments (Kayın,
2008). Afterward, recorded interventions of Turkey were classified as functioned and monumental scale buildings.

As a way of life and production cycle changed and developed with the new technology, modernism began to be composed of different periods. Visible transformations have occurred both in the physical environment and economy with the introduction of information technology. Mechanization was ended up, and factories located particularly in the city center were discharged due to usefulness and the need for space or lot. In that period, the future of these industrial buildings has raised questions among the international-national organization. The effect of industrialization is far-reaching, particularly on urbanization and the economy. Cossons (2013) maintains that both industrial heritage proves how the world economy has transformed into capitalism, and socio-cultural structure has adapted to this. He adds that 19th and 20th-century industrial settings are the highest versions of the technology in that period as much as they are a success story of nations. From this point of view, industrial areas are archeological evidence of industrial technology, processes, engineering, architecture, town-planning, and also skills, memories, and social life of workers and their communities (The Dublin Principles, 2011). However, heritage idea was not discussed in specific to the industrial asset until Michael Rix has propounded industrial archeology term as the study of the tangible evidence of social, economic and technological development of the period since industrialization in his article, the Amateur Historian in 1955 (Palmer & Neaverson, 2005). This study was a milestone in industrial heritage idea. The main argument of Rix was to reveal the origin of industrial history and to preserve these memories of the birthplace, Great Britain, by getting the awareness of these under risk sites. Today, the number and huge massive sizes of national factories that were built during the two World Wars are the archeological evidence of the response of British society to the struggle of war (Stratton & Trinder, 2016). Shortly, the idea of heritage on that sector was started to be discussed on an international scale after 1955. Organizational and international studies or projects were implemented practically since the 1970s in Europe. On the
other hand, for Turkey, discussions of industrial heritage and industrial archeology terms germinated with the Ankara Maltepe Gas and Electric Factory in the academic studies in the 1990s (Saner, 2012). Afterward, recorded interventions of Turkey were classified as refunctioined and monumental scale buildings. Coming to today, UNESCO World Heritage Center that tries to encourage countries and international organizations to protect natural and cultural assets and increase participation of citizens, has listed industrial heritage sites in 2013 to be protected.

2.1.3 Mining Studies and Their Relationship with Railway Transportation and Harbor Areas

Industrial sites always have a profound connection between the cultural and natural environment as suitable with the processes depending on natural sources of raw materials, energy, and transportation networks to produce and distribute products to broader markets (The Dublin Principles, 2011). Even there are many industrial sectors that made urban society more civilized; coal mining is the most peculiar one by which both creates its own community life and environmental settings. In addition to this quality, the potential of coal mining on meeting the basic energy needs of societies from the heavy industrial sites to home scale caused it being the popular industrial sector during the twentieth century all around the world to meet. For instance, British homes were mainly based on their energy to coal production (Stratton & Trinder, 2016). However, the incremental productions and needs of coal-generated new drawbacks and solutions that formed the urban environment in huge scales. After mining, the necessity of transportation made developments on railway and harbor structures, which are the latest phase of the production cycle. In Britain, railway structures were used under the command of the government to make energy for the Western Front during the First World War, and they transported armies and their supplies during the Second World War (Stratton & Trinder, 2016). Namely, these systems played an important at particular troublesome times. Meanwhile, existing
network design improved compatibly with the needs of war. For example, links from the Tottenham & Hampstead line to the Great Northern and Midland Mainlines at Harringay (TQ 314881) and Gospel Oak (TQ 285855) in north London were some of the new connections in the main railway system (Stratton & Trinder, 2016).

2.2 Definitions and Organizations in Heritage Conservation

Introducing some definitions of heritage is essential to guide the discussion that follows. According to Rodwell (2007), heritage is associated with patrimonial possessions and traditions. Besides, UNESCO describes the heritage as a legacy transferring from past to future generations without limitation of a material object. For Lowenthal (1998) and Davidson (2008), heritage is a conveniently ambiguous concept. It constitutes social and political ends (Samuel, 1994). Also, it should become heritage management on a global scale (Breglia, 2006). That is to say that forming a convenient definition in a broad sense is a problematic issue. On the other hand, while preservation of heritage has various meanings or the reasons through the humanity, it is evolved according to the criteria of consumer demand and reasons depending on the market in the consumption commodity (Xie, 2015). The heritage buildings/sites are be old fashioned for the present; however, they are discussed to preserve when the conditions are evaluated in terms of profits of society. The discussion can be designed in many aspects. For instance, the physical space preserves its intrinsic and intangible values in human memories and customs as well as its fabric, components, machinery, and setting (TICCIH, 2003). In each way, the lost or under risk memories or identity are transferred to the future as in the scope of heritage idea. Within this perspective, Ashworth and Larkham (as cited in Xie, 2015) state that public consumption demands are satisfied purposefully by the heritage as a current commodity.
The meaning of the heritage term evolves around the meanings of related words, which should be understood before examining the case (Figure 2.3). In the discussions, there are four common terms that lead to semantic confusion due to their close meanings. That is why revealing the definitions of which preservation, restoration, adaptation, conservation, and reconstruction, guides the understanding and questioning of the differences and similarities while approaching to the heritage. First of all, Rodwell (2007) explains the preservation as maintaining the fabric of a place in its existing state and retarding deterioration while Merriam Webster defines it as the activity or process of keeping something valued alive, intact, or free from damage or decay. Also, it is keeping something the same or preventing it from being damaged or destroyed (Cambridge Dictionary). Secondly, restoration is to revive the original concept or legibility of the building for the 1979 Burra Charter. Rodwell (2007) espouses that it is returning the existing fabric of a place to a known earlier state by removing accretions or by reassembling existing components without the introduction of new material. From the same point, it is an act of turning back to its original or former good position or condition (Merriam Webster; Cambridge Dictionary). The other related term with the intervention on heritage is an adaptation. According to the 1979 Burra Charter, it means modifying a place to suit new functions without destroying its cultural significance. Cambridge mentions that adaptation is the process of changing to suit different conditions and changes slightly over time to be able to
continue to exist in a particular environment. In another aspect, it is an adjustment or modification to environmental conditions, state, thing, process (Merriam Webster). Fourthly, conservation is thought of as the assembling term of restoration, adaptation, and preservation both by ICCROM and 1979 Burra Charter. Namely, it is an umbrella term to embrace the meanings of related words. In the Cambridge dictionary, it connotes the protection of living creatures, nature, and interesting and important structures and buildings, especially from the damaging effects of human activity. In detail, Merriam Webster's definition associates it with careful preservation and protection of something especially, planned management of a natural resource to prevent exploitation, destruction, or neglect and the preservation of a physical quantity during transformations or reactions. Munoz Vinas (as cited in Xie, 2015) continues that conservation is interpreted as the opposite of restoration in a broad sense, while it is understood to include the sum of all activities, including restoration in a narrow sense. However, according to Rodwell (2007), conservation means all the processes of looking after a place so as to retain its cultural significance. By taking base his definition, conservation has a strong relation with adaptation in an aspect. Therefore, it would make sense to evaluate adaptation terms under conservation. Lastly, ICOMOS (1979) and Rodwell (2007) explain reconstruction that means returning a place to a known earlier state and is distinguished from restoration by the introduction of new material into the fabric. In the dictionary meaning, Cambridge states as the process of building or creating something again that has been damaged or destroyed and an attempt to get a complete description of an event using the information available, or an attempt to repeat what happened during the event. Merriam Webster sustains that reconstruction is a rebuilding of a nonfunctional patented article that amounts to the creation of a new article and constitutes an infringement of the patent and the practice or process of recreating an incident for the purpose of investigating the specific facts and circumstances surrounding it.

In conclusion, the most related terms with the heritage idea were discussed. In general meaning, they can be correlated with the intervention approaches to the sites or assets, and all have a direct connection with the fabric or value of a place, activity, or process
and the position to this fabric or value. While some of them have a specific attitude for heritage, some of which meanings comprise others, behave like an umbrella term. If it is not talked about a specific implementation and discussions are keeping around the future interventions, conservation as a term can be preferable to be on the safe side.

2.3 Industrial Heritage Organizations and Their Scopes

Starting from Rix’s Amateur Historian article in 1955, industrial heritage has become one of the main topics of conservation all around the world. 1963 Industrial Monuments Survey can be the first organizational study as a reflection of Rix’s article. Following conservation studies make countries contemplate and work on the future of their old industrial sites. As many similarities of their boundaries help them work together, differences provide an opportunity to discover the unique details on sites. Also, examining the articles is essential to comprehend how the legislation has evolved. This part of the dissertation focuses on the organizations or articles that have an organic relation with the industrial heritage. In addition to this, a much broader timeline (Figure 2.4 & 2.5) is presented to grasp the general concept of conservation history. Also, these timelines help to comprehend the legislative and organizational evolution both on a national and international scale. In this way, the contradictions and discussions on conservations of the Zonguldak case study can be understood with the foundation of this section.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1916</td>
<td>America National Park Service</td>
</tr>
<tr>
<td>1931</td>
<td>The Athens Charter for the Restoration of Historic Monuments &amp; Carta del Restauro</td>
</tr>
<tr>
<td>1933</td>
<td>Turkish History Survey Society (Türk Tarihini Teşvik Cemiyeti)</td>
</tr>
<tr>
<td>1933</td>
<td>Athens Charter for the Restoration of Historic Monuments by CIAM (International Congress of Modern Architecture)</td>
</tr>
<tr>
<td>1945</td>
<td>UNESCO (United Nations Educational, Scientific and Cultural Organization)</td>
</tr>
<tr>
<td>1949</td>
<td>Statute of Council of Europe</td>
</tr>
<tr>
<td>1956</td>
<td>FICCIM (First International Congress on the Conservation of Industrial Monuments)</td>
</tr>
<tr>
<td>1963</td>
<td>ICCROM (International Centre for the Study of the Preservation and Restoration of Cultural Property)</td>
</tr>
<tr>
<td>1964</td>
<td>Venice Charter (International Charter for the Conservation and Restoration of Monuments and Sites)</td>
</tr>
<tr>
<td>1966</td>
<td>ICOMOS (International Council on Monuments and Sites)</td>
</tr>
<tr>
<td>1969</td>
<td>ICCROM Turkey (International Centre for the Study of the Preservation and Restoration of Cultural Property)</td>
</tr>
<tr>
<td>1973</td>
<td>ICCROM (First International Congress on the Conservation of Industrial Monuments)</td>
</tr>
<tr>
<td>1973</td>
<td>Law on Antiquities No. 1710 (Eski Eserler Kamuya)</td>
</tr>
<tr>
<td>1973</td>
<td>ICOMOS Turkey (International Council on Monuments and Sites) was affiliated to Ministry of Cultural Affairs and separated in 1992</td>
</tr>
<tr>
<td>1975</td>
<td>MECCIM (Second International Conference on the Conservation of Industrial Monuments)</td>
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<tr>
<td>1975</td>
<td>European Architectural Heritage Year</td>
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<tr>
<td>1975</td>
<td>The Declaration of Amsterdam</td>
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<tr>
<td>1978</td>
<td>TICCIH (The International Committee for the Conservation of Industrial Heritage)</td>
</tr>
<tr>
<td>1979</td>
<td>Harry Charter (Australia ICOMOS Charter for the Conservation of Places of Cultural Significance)</td>
</tr>
</tbody>
</table>

Figure 2.4. The timeline of organizations and Articles, made by author (2019)\(^\text{12}\).

\(^{12}\) The bold text represents the industrial heritage organizations or studies while the italics refers Turkish scope.
Figure 2.5. The timeline 2 of organizations and Articles, made by author (2019).
Even though UNESCO was established in 1945 as a consensus of the United Nations after the drastic effects of 2nd World War, practical studies about *the protection of the world cultural and natural Heritage*\(^\text{13}\) started in 1972. Its international acceptability influences many types of conservation studies, and its power of sanction provides permanent solutions to different problems occurring all around the world. As a result of this, UNESCO established the World Heritage Center to focus sincerely and profoundly on conservation studies in 1992. For documentation, Poland Wieliczka Salt Mine Field nominated by ICOMOS was selected as the 1st industrial site in UNESCO World Heritage List. This center has declared a World Heritage List in 2011. There were 37 industrial works from 936 heritage works, but none of them was from Turkey. ICCROM is an intergovernmental organization whose member states support the protection of heritage within their borders and beyond, and it was established under the guidance of UNESCO in 1956. The studies on conservation training, information, research, cooperation, and advocacy were made regionally by an interdisciplinary approach. All forms of cultural heritage are the interest topics of this organization. ICOMOS was established to develop theory, technique, and implementation approach to architectural heritage in 1965. It has produced profound and large archival information on that field. Detailly, its developed archive is the main factor in revealing and increase awareness of the industrial heritage today. As a result of the proposal of Neil Cossons, director of 1971-1983 England Ironbridge Gorge Museum, about a conference on industrial archeology, FICCIM was realized in 1973. This topic was discussed first time on an international scale. Following the meeting, SICCIM was in Bochum, Germany, in 1975. The last one eventuated with a new platform called TICCIH in 1978 (Saner, 2012). It is the world organization for industrial heritage and aims to promote international cooperation in preserving, conserving, investigating, documenting, researching, interpreting, and advancing the education of the industrial heritage (TICCIH, 2003). Since this meeting, the scope of industrial monuments term has been extended to industrial heritage so as to reach

\(^{13}\) This definition was cited as UNESCO’s own words published on its official website.
distinct cases (Saner, 2012). The Nizhny Tagil Charter for the Industrial Heritage is the 1st internationally recognized text for industrial conservation and proposed seven sections that are definition, values, identification, legal protection, maintenance, education, presentation. Moreover, The Dublin Principle, known as Principles for the Conservation of Industrial Heritage Sites, Structures, Areas, and Landscapes, was organized by ICOMOS – TICCIH in 2011 and maintains industrial heritage as the archaeological evidence of past activities and technologies. Its principles aim to guide the documentation, protection, conservation, and appreciation of industrial heritage as part of the heritage of human societies around the World. There are four main discussed titles, which are documentation, policymaking, conservation, presentation showing, respectively, the process. Getty Conservation Institute was established by the Getty Foundation, initiated by J. Paul Getty Museum, in 1985 and supported the understanding and preservation of the visual arts and creates funds. The restoration-based studies are managed with a high-qualified staff. Also, the findings are both restored and thought within a museumification concept. DOCOMOMO International was established by inspiring from ICOMOS in Paris in 1988. The main aim is the protection and conservation of Modern Architecture and Urbanism. Since 1990, it organizes conferences or seminars every two years all around the world. ERIH is a project that aims to present the industrial heritage and hence disseminate the concept by creating a network and various travel routes between the various points where the buildings and ruins are examples of industrial heritage in Europe (Saner, 2012). The 1st footstep was the Ruhr Region in Germany, so it is discussed in the following part. Also, it is an example of the transformation of a coal washery area in terms of heritage assets comparing to the Zonguldak Central Scrubber Area.

As a part of the heritage organizational developments, the Nara Document plays a significant role in terms of an example of a collaboration of UNESCO, ICOMOS, and ICCROM in 1994. By stemming from Venice Charter, it focuses on the value and authenticity. According to the document, heritage is evolved as a product of cultural

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14 The meeting was organized by TICCIH.
diversity that makes it unique. Lastly, E-FAITH is an industrial heritage platform, established in 2001 for volunteers and associations that can come together to exchange experiences and support the industrial and technical heritage-based projects in Europe. Declaration of 2015 as European Industrial and Technical Heritage Year makes E-FAITH more visible and effective in the conservation field. In light of all this information, the relationship between organizations and produced charters or studies can be presented in a concept map. This study emphasizes the importance of collaborations and four main aspects, each of which is related (Figure 2.6).

![Figure 2.6. Organizations for industrial heritage, prepared by author (2019).]
In the Turkish scenario, legislative implementations are seen rather than Turkish origin organizations; nevertheless, the Turkish History Survey Society was the prominent organization for conservation in 1931. Law No: 5805 was approved by the High Council of Real Estate Antiquities and Monuments in 1951. After Turkey became a member of ICCROM in 1969, it regulated Law on Antiquities No. 1710 as suitable to standards of European Organizations in 1973 (Kaderli, 2014). From the state foundation, the Ministry of Cultural Affairs continued the studies, and ICOMOS Turkey was affiliated to it in 1974 and separated in 1992. In 1983, Turkish Law No. 2863, a milestone in Turkish conservation history, developed conservation scope from the protection of object scale to urban scale. UNESCO Convention on the Protection of World Cultural and Natural Heritage was signed by Turkey in 1982. Hence, the definition of old assets transformed into cultural and natural assets or cultural value and assets by the Law on Cultural and Natural Heritage No. 3386 in 1987 (Kaderli, 2014). ÇEKÜL started its studies in 1990. Turkey Union of Historical Towns was founded to include local authorities in conservation in 2000. Municipalities guided themselves, and an incentive mechanism for preservation of sites was initiated. However, the lack of disciplinary qualifications damaged the implementation in a long period (Kayın, 2008). DOCOMOMO, the Turkey, was established in 2002. Ministry of Cultural Affairs turned into the Republic of Turkey Ministry of Culture and Tourism in 2003. In 2004, Law No: 5226 on the Protection of Cultural and Natural Assets and Various Laws was amended.
2.3.1 ERIH (European Route of Industrial Heritage)

It is a web-based tourist platform, published in 1999, for important industrial sites throughout Europe, mostly in the Northwestern side. In this case, the communication tool is the ERIH website (Figure 2.7). The selection criteria of the sites are a symbolic value within the industrial history, building, structure, attractive experience, content, or presentation.

There are four main types to see the sites; anchor points main areas within history, region selection, country selection, theme routes. The areas are systematically classified according to their former uses, which are the application of power, communication, housing and architecture, industry and war, iron and steel, landscapes, mining, paper, production and manufacturing, salt, service and leisure industry, textiles, transport, and water. In the last year, the lists, Company Museums, and Factory Tours, and UNESCO World Heritage Sites, were added. Today, there are

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15 https://www.erih.net
95 sites all around the World registered to the ERIH as black coal mining. Most of them located in Belgium. The achievement of this network is not only to provide web-based information for tourists, organizations, and academic institutions also to encourage local interest surrounding sites in the preservation process (Berens, 2011). The use of the information technology tool with creative mapping techniques will be discussed in the following chapter for ERIH.

2.3.2 National Parks Service

![Find a Park](https://www.nps.gov/index.htm)

*Figure 2.8. National Parks Service Official Website.*

Its origin dates back to 1916 America National Park Service\(^\text{16}\) (Figure 2.8). The service is adapted to current technology and serves an interactive platform for users. It is to present and document the natural and cultural resources in a web-based platform,

\(^\text{16}\) The official website is https://www.nps.gov/index.htm.
which can be called as the American version of conservation of natural heritage. The difference is that both provided data can be enhanced by the stories of volunteers and partners, and help for revitalizing the communities to preserve local history is supported (NPS). The list of topics that parks are classified varies from animal species, arts, and culture to sports activities, environmental concerns like climate change. The online provided maps guide visitors on their trips. The use of the information technology tool (crowdsourcing data) with creative mapping techniques will be discussed in the following chapter for NPS (Figure 2.8).
2.4 An Industrial Heritage Site In Germany: Zeche Zollverein Complex

North Rhine Westphalia is the most known industrial state of Germany (Figure 2.9). Ruhrgebiet or Rhur region that has about 5.1 million population on 4438 km² area and consists of 15 cities of which is that Essen is the second largest one succeeding to Dortmund, is located in that state (Der Regionalverband Ruhr, 2018). Closing to the Essen, Zollverein Coal Mine Industrial Site, or "Zeche Zollverein Coal Mine and Coking Plant World Heritage Site by 2001 UNESCO List", nearly 100 hectares and

\[\text{Figure 2.9. Map of North Rhine Westphalia}^{17}.\]

\[\text{The layout Retrieved from https://www.wikizeroo.org/index.php?q=aHR0cHM6Ly9kZS53aWtpcGVkaWEub3JnL3dpa2kvRGF0ZWk6Tm9ydGhfcnhpbmVfdl9SVUluc3Zn.}\]
dating back to 1847, is seen as an industrial portal of all-district. The focus topic of this title, Ruhr Museum, formerly washing plant, occupies approximately 21600 m² within this site. As shown in Figure 2.10 Graph B & D, Emscher Zone is the richest compact area in terms of coal mining, so other sectors developed with the population growth. Steel Factories were the first following sector of coal since both forces each other in the production cycle and served a similar market. It can be said that the effect of trade and industry is not only local but also it has become an important center for the whole of Europe due to the trade and industry dominated Rhine's proximity to Düsseldorf, its close connection with Cologne and the Rhine and being in the western border of Germany and therefore in the middle of Europe (Haznedar, 2008).
Figure 2.10. 1972 West German Thematic Map.

The urban environment was shaped conformably to the production system. Besides this, geographical conditions also formed an urban environment in balance with the quality of the soil and the development of mountain ranges, rivers, and trading routes (Figure 2.10 Graph C). Considering the focus point is the industrial settings of the modern era, the intricate housing units can be overwhelmed. Namely, the hugeness of the industrial system is hidden by dense natural fabric, and the small scale of the urban fabric is seen as an intermediate form between them. That’s why the complex is suitable to propose a project merged both landscape and educational tourism for future implementations (Figure 2.11). On the other hand, the educational level is notably high than in other urbanized areas due to its active production life. Nevertheless, traditions or local identity suffered during the industrial period that differs from the Ruhr Case from equivalent ones. This situation created two distinct histories from industrial and traditional life. Hence, the background of the political, economic, social, cultural, and technological story, which needs to be documented, has full of conscious
that is an important part of the region’s identity. There are some sections that exemplify the process of industrialization both in region and country scale. For the geological story and material information about coal, extraction of high-quality iron from the field, and transportable position of the region made area much preferable. Before the production of coal and steel in the area, the expansive agricultural lands were the main profit. Trading liberalization on trade, freedom of peasants, and mining regulations prepared the conjuncture for the development of industrialization — also, the infrastructural enterprises like building network system on land along Ruhr river. Steel and iron production sector were developed in the meantime with coal mining and transportation based infrastructural studies. On the other hand, the formation of the coal dates back to 300 million years ago, while the reflection of its on urban life started with industrialization. The urbanized history of the area has started at the beginning of industrialization. Besides, the popularity of Ruhr is based on World Wars, having led the production of coal used in military issues. The Ruhr region was seriously plagued by famine during the First World War, and it suffered extensively from air raids during the Second World War (Ruhr Museum Website). France and Belgium troops occupied near cities and the region as in return for a commitment of World War I. As a result, production and development had dropped, and the site lived a hard time between 1914 and 1925. When Hitler and his Nazi Party (NSDP) took control of the site again, they managed it from a statist approach that provided the use of coal in electricity and gas generation that made the site economically strong.

After the 1929 World Great Depression, the economic discussions in the country led a statist approach focusing on the railway system, new energy plants, mail - telephone – telegraph, etc. (Haznedar, 2008) (Figure 2.11). Naturally, this made the weapon industry profitable, and Germany became the first rival of England. Therefore, the industrial studies ended up with development and war. During World War II, the region was under numerous devastating bombardments. From 1939 to 1945, the region had lived a second hard time in the production. Afterward, Ruhr was controlled by an international platform, International Authority for the Ruhr / IAR from 1945 to
1957. This period yielded a golden era in production, and so nearly 600 thousand workers were working in a total of 153 fields. This glory time led coal and steel relation became much intense in addition to funds of the European Coal and Steel Community established in 1952 (Figure 2.10 Graph A). Even German authorities took control; the cold war with the Red Army had affected the site with a decrease in production. Zollverein Coal Mine and Zollverein Coking Plant were erected between 1957–1961 and closed in 1993 while the mining activities had stopped in 1986.

To sum up, Ruhr has always been insights and has the potential to develop quickly. The reason is that during the development process the transport rivers leading to Central Europe enter Germany from the high seas, the developments in the cities along this path are much higher than the other European countries and the industrial development process towards both the states and the internal regions of the whole country and the fact that these rivers are conducive to the use of the river (Haznedar, 2008). Since the end of 1950, the urban physical environment and land use policy has been the focus topic, and heavy industries started to be moved peripheries. The city centers were got fitted up with light industries using high technology and social settings. The abandoned large size buildings became problematic sites that raised new questions. The transformation discussions turned into topics of international/national civil organizations. Meanwhile, until the world mining crisis had occurred in the 1970s, the development of Germany was highly depended on the Ruhr area.
In the 2000s, the number of minefields has decreased in 10 because of two main reasons. The first one is changing energy needs that are alternative modes like hydroelectricity, natural gas, and increasing production cost comparing to developing technology and population. The second was the ceasing funds to coal mining by the European Union and the German government. On the other hand, today, social and economic life in the Ruhr region is profoundly characterized by a measure of stability, quality of life, health, and engagement that two hundred years ago would have been inconceivable (Ruhr Museum Website). Besides, after Ruhr, Essen was declared as the 2010 European Capital of Culture, the transformation projects were supported monetarily. Over the years, public spaces have become commercially exchange areas that produce economic value and profits for cities (Gehl as cited in Akkar Ercan, 2016c). That’s why these projects have financial aspects as well as socio-cultural and historical (Figure 2.12).
Today, Zeche Zollverein Industrial Site transformed into the park as the product of series projects of organizations and joint studies of architectural, planning, and landscape offices (Figure 2.13). The reason for the increasing significance of these areas is coming from the aim that is to create the public space between buildings embedded in a geographic and historical context with their own identities (Akkar Ercan, 2007; Akkar Ercan, 2016c). Primarily, European Union support with the local initiatives is responsible for the change. Subsequently, Emscherpark GmbH and route.industriekultur provided a holistic region-based approach and increased the visibility of the site on an international scale by the tourism-based method. From the disciplinary side, Planergruppe GmbH Oberhausen (Zollverein Park Landscape), OMA - Rem Koolhaas (Ruhr Museum), SANAA Gebäude (The Zollverein School of Management and Design) are the prominent offices having studied in the site. There

\[^{19}\text{It is surrounded by the forward-thinking architecture of the Zollverein Coking Plant, is a winter highlight for all age groups. – © Jochen Tack / Zollverein Foundation.}\]
are many organized industrial tours to the region. ERIH is the most known platform making thematic routes.

The Kohlenwäsche or Coal Washing Plant, Ruhr Museum, building was designed and completed the construction between 2001-2007. It is 90*30 m in length/width and 40 m in height. The process of coal washing that is respectively, selection, classification, storing, distribution, is tried to be explained to visitors as the production story of the building. Also, the socio-cultural and economic contexts are the critical factors in the design of the museum. That’s why the idea was to present how the past shaped the present (Ruhr Museum Website). Namely, revealing memory for the past users and transferring the information for the present users are two key goals. Museum opened its exhibition to the public in 2010. As in the original factory, people access to the inside via an escalator up to 24 meters. In this way, the movement from top to bottom is maintained (Figure 2.14). The presentation of original machines increases the awareness of modern culture, and lower levels are used as archives referring to the unique function storage. The original architecture of the building has a Bauhaus style with its red steel structure as similar to complex other buildings made in the 20th century.

*Figure 2.14. The thematic section designed by OMA.*
The curation is a human experience based that related objects of inhabitants tell the story of collective memory, which consists of daily life, central events of Ruhr Area. It focuses on art, local history, natural history, and ethnology, and was one of the first museums in the Ruhr area (Ruhr Museum Website). On the other hand, the logical structure is explained in the broadest timeline to show the unique form of industrialization. So, both geological and social perspectives are transferred to future generations by museumification. However, the selected topics and objects prove an archaeological process rather than historical (Ruhr Museum Website). Thinking from a regional scale, the 1984 Mineral Museum in Essen-Kupferdreh is the ideal starting point of the trips to learn about the geological trail to carbon outcroppings and the history of coal development 300 million years ago.

To conclude, the process-based consensus among international and national platforms is critical for the success of the current industrial production and recognition as the heritage period. The cohesion and cooperation that this approach brings with it allow all these fields about each other to continue their development processes (Haznedar, 2008). Planergruppe GmbH explains the Ruhr case that is not about creating a museum-like urban environment, but about designing a landscape with already established elements; this idea deliberately involves, in a plausible manner, historical and current innovations and signs and provides room and space for future developments and purposes. Moreover, the difference in industrial heritage sites from other heritage types is that the main focus of intervention here is based on education and tourism. Also, Zollverein Park is an exceptional open space, offering a unique experience with its intricate free space offering in conjunction with the mining facility, and attracting tourists and residents alike (Planergruppe GmbH) because these sites are not full of production story also, they affect their local, natural history and ethnology. To understand the identity of society and civilize, examining and transferring these areas within their contextual background information will make sense.
CHAPTER 3

HERITAGE CONSERVATION APPROACHES

3.1 Material Based Approach

Material based approach dates back to the 19th and early 20th century. The Venice Charter (ICOMOS, 1964) proposed the first time this approach's conceptual idea. In that type of study, heritage authority decides all implementations to do the site or building by the view of an expert. Therefore, it is a well expert-driven approach as well as its preservationist position. There is no community involvement. In the long term, the braking effect on the sense of belonging to the site, which leads to the destruction of the heritage asset, is documented, especially in non-Western places (Poulios, 2014). While the preservation of qualities of the heritage object exists, the adaptation of implementation detail to the new sources or situations becomes the main problem. The material centered perspective leads to the lack of connection between the present or future. On the other side, the potential of this approach is to preserve the original state of the heritage. Another study, living heritage, can be linked to this perspective. The main idea is maintaining the initial experience or function of the space so that the core community lives with culture (Poulios, 2014). However, applying this approach would not make sense if the destruction on-site happened.

3.2 Context Based Approach

In the formation of city, the discussions around context-based are perceived as a typical scientific solution in the applicability of heritage preservation (Klaasen, Boelens, Doevendans as cited in Schaick, 2011) because historic areas have to be attributed to understanding of their position as a vital element of a living city (Avrami et al., 2000). Assessment of heritage values diverse on time or according to parties due
to being based on the changing contextual factors like social forces, economic opportunities, and cultural trends, and the various visions of disciplines, professions (Mason, 2002). So, assessing the contexts of the built environment makes exploring the heritage value becomes hard with conventional methods. By contextual framework, the researcher or stakeholder can get a chance to access the information in detail and to share his knowledge on related context. The segregation makes the classification of data clear; however, the intricate relation and broad boundaries of the settings can make difficult a clear division. In that situation, consideration of the evolution of contexts helps to understand the connector factor and selection of the dominant framework.

3.2.1 Context Typology

Despite various examples, the four applicable and familiar contexts are presented. In the case study, historical, political, and economic environments are discussed together due to slight distinctions between them within the Zonguldak and Turkey region scale. Sociocultural life, economy policy, and the built environment have also direct relation with each other. The contextual framework helps the use of contemporary mapping techniques to provide well-explained data for analysis and preparing for sustainable conservation.

3.2.1.1 Historical

Historical context refers to the events and movements that occurred around an individual or a thing that is usually on a national or international scale. As Li (2017) mentioned in his dissertation, the heritage industry has an organic relation with history because its roots belong to the past. Revealing the ties of place with the heritage makes a clear understanding of the present situation. Mainly, place identity represented by built heritage is evolved and formed through history (Akkar Ercan, 2017).
3.2.1.2 **Political and Economic**

This type of context deals with incidents and accidents that caused significant upheaval in the political environment of that country or region. It may consist of revolutions, protests, judicial reforms, army coups, controversies & scams concerning political parties. The economic context can be shaped actively by the city and influences businesses to make investments or create jobs. It, therefore, influences a city's economic structure and its attractiveness as a location.

3.2.1.3 **Sociocultural**

Social context tells how people live or develop the physical and social settings of the place. Also, it includes people’s interaction with culture, education, people, and institutions. On the other hand, cultural context means ideologies, traditions, and values that surround and shape an individual’s beliefs. It can affect and include people's behavior, decision-making process, and opportunities. For instance, industrial buildings changed their communities’ way of life in terms of social and cultural attitudes and shifted values towards the industry as well as the economy; so, studying an industrial heritage reveals inevitably the facts of post-industrial societies instead of the historical existence of industrialization (Li, 2017).

3.2.1.4 **Architectural and Planning**

This contextual frame consists of design outputs. Also, the fabric, which means related to physical settings, is the determinant factor (ICOMOS, 2013). To exemplify, landscape, cityscape, building elements are primary components of this context. Furthermore, the urban plans or maps and city development plans are involved in this section. Briefly, all data forming the physical environment from the ideal stage to praxis are the subject of architectural & planning context.
3.3 Value Based Approach

Postmodernism put footsteps of this approach in the 1980s, and Burra Charter detailed it (ICOMOS, 1999). Today, the Getty Conservation Institute uses this approach in its studies.

As its nature that society does not interest in the preservation of the field when the value-based approach helps to get the awareness of heritage conservation (Torre, 2002) (Figure 3.1).

3.3.1 Definition of Value

Value is ‘a set of positive characteristics or qualities’ about heritage perceived in cultural objects or sites by specific people or groups (Mason, 2002; Torre, 2002). The definition of values is fluent in time. The meaning of the word makes differences concerning the conjuncture of the era (Bandarin & Oers, 2014); the value was associated with monumentality, education, identity, and function in the 19th century,
with social issues in the 20th century, with aesthetic and symbolic objects like a living heritage in the 21st century.

On the other hand, there are timeless definitions which are universally consented; intrinsic values (originating from the cultural asset) material-workmanship-design-setting (Munjari, 2004) related to the nature of the building essence of it, extrinsic values (attributed to cultural asset) ascribed by people and society (Chung et al., 2014; Lyons, 2014), and economic values (referred to usage, economic potentials of the monument, and monetary values).

Value perception term is used initially in the marketing field that describes it as the customers’ evaluation of the quality of a product or service and its ability in terms of matching the needs and expectations, particularly compared to others\(^\text{20}\). In another way, the desire of customers defines the level of price or measure\(^\text{21}\). According to Cambridge\(^\text{22}\) and Merriam Webster\(^\text{23}\), the sole meaning of the term, perception, connotes that awareness of objects or things through senses varying from physical to mental and a belief or opinion deemed by the majority. In urban studies, the term is the representation of the actual environment in the spiritual world of bodies. The obligation of integration perceptions to the urban space studies is highlighted by many scholars like Lefebvre (1991). He emphasizes that it would be a mistake that taking the space by excluding the perceptions through the mental act, collecting details into entire reality, and comprehending contents concerning their interrelationships within the containing forms.

Furthermore, heritage tourism uses much the term in its studies. Zeithaml (1988) explains that perceived value is the consumer's overall estimation of the value of the product based on obtained and offered expectations. Besides, there is a positive relationship between experience quality and the perceived value that the

\(^{20}\) https://www.investopedia.com/terms/p/perceived-value.asp, accessed on September 18, 2019

\(^{21}\) https://dictionary.cambridge.org/tr/sözlük/ingilizce/perceived-value, accessed on September 18, 2019

\(^{22}\) https://dictionary.cambridge.org/tr/

\(^{23}\) https://www.merriam-webster.com
“cognitive/emotive” casual sequence reflects (Chen et al., 2010). As described, the evaluation of the object in the mental world of parties resembles in each field.

3.3.2 Scope of Value Based Approach

The main question for the value-based approach is what makes the site significant. This approach takes heritage perception of the community based on preservation and tries to establish ‘a lingua franca’ or common language among different interests and parties (Mason & Avrami, 2002). This approach gets the involvement of stakeholders to conservation through consultation, active participation, or joint management (Poulios, 2014). This integration effort of the value-based approach makes it the most preferred one on heritage preservation (Mason, 2002). In the literature, there are many value-based studies to make the history of the heritage visible. The documentation of these values supports further studies and provides in-depth information to authorities to make new plans about the preservation of heritage (Şanlı, 2016).

3.3.3 Value Assessment

The documentation of the values starts with a defined assessment process, which is a vital stage for the conservation of heritage (Kılınç, 2009). The assessment of value composes a pluralist and eclectic process that depends on contextual information of the site and perceptions of different stakeholders (Mason, 2002). Worthing & Worthing (2016) associates the term ‘cultural significance’ with the assessment of values to identify why and what is essential. He asserts that value-based management equals to the significant-based management, particularly in thinking the complicated and sometimes contradictory issues or values of built heritage. From this perspective, Mason (2002) proposes a three-stage value assessment, identifying all the values of

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24 At this point, Stephenson (2008) maintains three definitions of culture that is way of life, identity of a group, and particular social process.
the heritage in question, describing them, and integrating and ranking the different, sometimes conflicting values. In the third stage, as much as finalizing the obtained value data from primary sources can be compelling, particularly for sites where communication among parties is problematic, understanding the contradictions by this value revealing can make the first phase to solve the communication problems. Also, possible collaborations are encouraged with similarities among values.

Moreover, the documented values from the sources should be guided within a contextual framework so that the prominent values can be guided consciously by authorities, users, or volunteers. The heritage interventions are the reflection of this value scene and the use of the scene. The successful cases end up with the well-applied conservation while the destruction of the site crowns the worst ones. In this way, revealing the values in balance with the context is essential.

### 3.3.4 Value Typology

The changing nature of value assessment leads the distinct value models in the literature to define and analyze the heritage objects or sites. Each process describes its value typology that is an analytical tool to minimize complexity and to help the understanding of the context from a holistic view (Mason, 2002). The other important aspect of this is that explicitly defining a system can provide accountability both in terms of recognizing places worthy of protection and in terms of managing them, and openness and transparency in decision-making by creating better incentives for dialogue and scrutiny, and it would also inspire and empower a broader audience to better understand the heritage asset (Worthing & Worthing, 2016). So, to describe both similarities and differences among the typologies, all existing values are classified by using four central edge values, vertical ones presented by Getty (2002) and horizontal ones preferred by Riegl (1903). In the chart, when each typology proposed by organizations is matching respecting to its related side, attitudes of
foundations can be observed. By mapping these values, a new typological chart comes into being by itself (Figure 3.2).

Figure 3.2. Value Cloud Map prepared by author (2019)\textsuperscript{25}.

\textsuperscript{25} The reference is Mason & Avram (2002); Getty (2002).
3.3.4.1 Three Headline Value Typology

In this type, classification offers to define values in respect to the relation with the object or material. First, when the values are related to pure existing qualities of the asset, they are intrinsic values or insider view. In another way, the dominant factor defining the value is the object and its existence. Second, in the extrinsic values, the determinant factor of the value is ascribed apart from the asset or heritage. Namely, the outsider view from the heritage building or structure specifies the value in this type. Third, economic values refer to both monetary issues and public utility. These profits can evolve from both the existence of the building and the perception of individuals or parties. That is why studying the economic value as separate will be beneficial.

**Intrinsic values:** They are related to the existence of a building or site as permanent and accepted information (Kılınc, 2009). Because of its raison d'être, the reason for being, values-driven by heritage assets, are called as existing. So, a joint approval for the values and an accessible definition for the heritage can exist effortlessly.

1. **Age Value:** The construction date or the period which people remember is the main criterion for this value. It is the well-defined information that the more remnants aged, the more they become valuable for humanity. That is why age valuable assets are known as old. In the Zonguldak case, the discussion around the age makes the Washery Area new or modern.

2. **Historical Value:** When a historical event leads the construction or eradication of a specific structure, and the event is called a turning point for a group of people, the historical value for this structure can be evaluated “from the heritage material’s age, from its association with people or events, from its rarity and uniqueness, from its technological qualities, or its archival/documentary potential” (Getty, 2002). Even though monuments are usually associated with this value, some buildings formed or damaged by

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26 [https://dictionary.cambridge.org/tr/](https://dictionary.cambridge.org/tr/), accessed on September 18, 2019
important events having affected humanity like II. World War can be classified under this value type.

3. **Technical or Technological Value**: Technology refers to the series of scientific studies or knowledge to act practically\(^{27}\). As defined, technological assets have the latest innovations that promote society to live in better conditions. So, technological structures are known as having an advance effect on ethics, education, the lifestyle of its society. Considerably, industrial buildings are studied under the technological value since the new products and a way of product they produce to make their community step forward. In Zonguldak, the Central Coal Washery Area can be defined as the prominent technology for the mining industry in its peak time.

4. **Document Value**: Once leftover parts of structure/building can provide study or analysis of specific production/construction techniques, material, history, art, daily life, this asset is called documentary valuable. From this point, industrial buildings or sites like Zonguldak Central Washery Facility are the evidence of document value.

**Extrinsic values**: Due to the origin of the word “extrinsic”, outsider views and experiences are the main subject of this type of values\(^{28}\). Experience based attributions are the subject of this type of values (Kılınç, 2009). Because of the different aspects of individuals or parties, meaning of the values depends based on the position of actor. That’s why subjective or interpreted values usually are classified under this title.

1. **Sociocultural Value**: The relation between heritage asset and social position and cultural background of individual or party defines the sociocultural value. This type also constitutes common values described by policies, religious, identity, memory, spiritual (Kılınç, 2009; Getty, 2002). When heritage has a considerable effect or is a changing factor in the sociocultural life of

\(^{27}\) https://www.merriam-webster.com, accessed on September 18, 2019

\(^{28}\) https://www.merriam-webster.com, accessed on September 18, 2019
individuals, some sociocultural values attribute to it. In the industrialization period, there has been an enormous change in the way of life. In the company with the series production, modernization came into people’s lives. Today, even though there are many unused most of the industrial buildings, they are the sociocultural evidence. In this point of view, Zonguldak Industrial Heritage is worth to be studied in terms of sociocultural value.

2. **Political Value:** As described in Getty (2002), this type of value relates to the reflection of civic/social life decisions on the physical environment. As well as governmental behaviors lead the change on heritage sites in the past, local activities or reactions can have this type of effect. So political values can be regarded in both ways. For the Zonguldak, industrial history leads to a profound political value that should be analyzed.

3. **Aesthetic Value:** Associated terms, style, beauty, and art, can be guided to determine what aesthetic is (Lipe and Mason, as cited in Kılınç, 2009, p. 71). As well as the physical appearance and its perception, the intangible qualities define the value of aesthetic like space, mass, volume, time, movement, color, light, smell, sound, tactility, kinesthesia, pattern, order, information, and meaning (Berleant & Carlson as cited in Çörek, 2018, p. 48). From this aspect, industrial buildings have been a topic of aesthetics with their proposed new technology, the distinct view in the cityscape.

4. **Symbolic Value:** The meaning of the word, symbol, is referred to as a way of representation of a notion, individual, event, period, or party. In this situation, the symbolic value can be connoted to the interpretation of the ideology of one period or situation. It cannot be thought apart from the identity of space because the symbolic value of a city contributes to the identity of its public space (Akkar Ercan, 2016c). Industrialization met the world with technology (mass production), modernization, and development. Hence, the remnants of industrial assets will be inevitably the symbol of industrial ideology. In this part, researching the symbolic value of the Zonguldak Central Coal Washery Area is one of the main parts of the thesis.
5. **Identity Value:** This type mostly relates to place since identity includes physical settings, activities, and meanings (Akkar Ercan, 2017). Physical space is a substantial part of the heritage, while activities related to space and user interaction. In the meaning of the word, it is both a different situation or thing and sameness with its instances\(^{29}\). Place identity is perceived as a dynamic concept in the fields of historical and cultural heritage (Akkar Ercan, 2016b). In other words, the industrialization occurred all around the world; however, the effect and physical, social implementation have seen different ways because of the place identity. Each location has its physical environment and cultural-social background that lead differences among industrial heritages. Pickard, as cited in Canaran (2009), states the identity and social values of industrial sites make the conservation possible in that scope.

**Economic values:** This type of values have financially beneficial qualities which feed the building existence. Economic values can be questioned on heritage assets anytime. The site can sustain itself monetarily in the past, but today it can be demolished or abandoned partially or totally. Provided that the new conservation project makes new profits to the public, present market value is discussed.

1. **Use / Functional Value:** The meaning of this value is strongly related to the purpose and use of the building. This value can be analyzed when the building has potential use for the future or was used in the past. Using the remnant structure and functioning it for the sociocultural purposes provide financial benefits for the parties, owner, and administrator (Kılınç, 2009).

2. **Market Value:** This type relates to gaining money from the running of the site. When the building structure ends its business, the market value is called as being in the past. Abandoned industrial assets have market value in their past. On the other hand, as Kılınç (2009) states, future market value can be formed by consumer-oriented projects under conservation and management.

\(^{29}\) https://www.merriam-webster.com, accessed on September 18, 2019
3.3.4.2 Two Headline (Riegl, 1903) Value Typology

**Memorial Values:** they consist intentional, unintentional(historical), age values.

1. **Intentional:** the artifact is preserved consciously due to its commemorative quality. It has become a monument.

2. **Unintentional:** the artifact documents individual human activity and is full of the particular actions which belonged to the past.

3. **Age:** the artifact sustains its existence, appearance for years. It is abandoned to its natural fate or continues with a similar function; in this way, it exhibits the lifecycle of itself.

**Present Day Values:** they include use, art (newness, relative art) values.

1. **Use:** the artifact maintains to service humanity with similar or different functions without destruction.

2. **Art:** the artifact has a distinct character and potential to create an image in the city with its appearance.
   - **Newness:** the artifact has the last improvements, technology, and aesthetic vision in its field.
   - **Relative art:** the artifact is criticized by the new users or citizens/authorities. It is formed a tangible and intangible way according to their notions.

In conclusion, it is valid in both three and two headline typologies that value has a continues situation that can form itself depending on the time and position. While the position feeds extrinsic and intrinsic values, the classification of Riegl (1903) emphasizes the time differences in defining the value type.
3.3.4.3 Value Typology Relation with The Concept of Space

“Looking at cities can give a special pleasure; however common place the sight may be. Like a piece of architecture, the city is a construction in space, but one of vast scale, a thing perceived only in the course of long spans of time. City design is therefore a temporal art, but it can rarely use the controlled and limited sequences of other temporal arts like music. On different occasions and for different people, the sequences are reversed, interrupted, abandoned, cut across. It is seen in all lights and all weathers.”

(Lynch, 1960, p.1)

The value of a heritage site is directly related to its space even though its assessment is an essential approach for conservation. At this moment, the valuable qualities of the heritage spring from the conceptual approach of the space. In other words, including the concept of space to the construction of value typology is crucial to understand the background relations of changing the physical environment and, in fact, to help the efficiency of a value-based conservation approach. So before revealing the values of the heritage site, organized space by social practice and physical environment has been discussed in this dissertation. Here, the physical environment always has strong relations with user experiences (Figure 3.3) while people decode the information produced by the environment, the existing situation conduct and directs the user outputs (Rapoport, 1982). By taking human practice and environmental information into focus point, defining the notion of space guides the setting a sense of value map. Sense of place origins from the evaluation of physical characteristics, environments at different periods by distinct persons, groups, and cultures (Karakul, 2011). As a matter of this course, communication between space and individuals is susceptible to being complex since each relation has its meanings. That is why the conservation of a particular heritage usually becomes challengeable, and the process makes the site
problematic or “terrain vague” (Xie, 2015). So, analyzing this type of area can be fruitful through the evaluation of three headline typology with Riegl’s time-based value approach from the view of space concept. It helps to reveal the discontinuities-continuities (Poulios, 2014) between past and present situations and similarities-differences between values because when the practical process of conservation becomes an issue, changeability of the physical environment raises the questions of what memory remembers and how the conservation will occur. For memory, Lynch (1972) describes it as the outcome of a process of selection and random accumulations of relationships. For the conservation question, the perception of people about their heritage becomes a critical task when the change is likely to happen (Avrami et al., 2000). Hence, not only documenting the existing structure can be a part of the process; also, inhabitants’ vision leads the result in the conservation issue. So, in the urban issues, the relation among time, perceived space, and natural urban environment are essential to study (Lynch, 1972). As a result of this, the city as an object defined by perceptions of inhabitants and a product made by builders should be studied both as a perceived and existing thing (Figure 3.3).

![Figure 3.3. Relation diagram designed by the author (2019)](image-url)
Focusing on space notions of Cassirer, Lefebvre, and Harvey, “tripartite division” leads that the concept of space is defined differently by experiences and physical environment. Detail explanation of these definitions with their similarities and differences exist in the discussion. First, Ernst Cassirer, a Neo-Kantian philosopher, describes the space from a socialist perspective as organic space, perceptual space, symbolic space. Organic space is the spatial experience that only belongs to its species (Sundstrom, 2003). That is why the produced information from this space relates to the existing values. Physical and biological experiences feed perceptual space. Because of the changeability of outcome experience, it produces perceived values about the site.

Symbolic or abstract space varies the meaning of the site (Sundstrom, 2003) since each society has its interpretation of the way of life. Naturally, it makes its own perceived values. Second, Cassirer’s tripartite division most probably inspired to Henri Lefebvre, a Neo-Marxist philosopher, and sociologist, in the process of his definition of space again from a socialist aspect. He proposed a spatial triad which first published in his book Production of Space (1991) and which defines the scope of space as a spatial practice, representations of space, and representational space. Spatial practice perceived and experienced space or material space (Graafland, 2010), is based on production-reproduction and certain locations-social formations. It is about the integration of members in which degree of their relationship with the social space (Lefebvre, 1991). Due to the existing relationship of individuals, this material space relates to perception and perceived values. Representation of space conceived or conceptualized space (Harvey, 2008), is about the links and orders of production as well as frontal relations and codes (Lefebvre, 1991). Here, there are precise or existing relations and objects, so it forms existing values on site. Representational space or lived space embodies symbols related to the dark side of social life. There is an imagined or designed world which described in a subjective way that keeps this definition within the perceived space. Space is transformed by using complex symbols of social life.

76
Finally, David Harvey, a Marxist economic geographer, stated his notion of space in his book of Spaces of Global Capitalism (2006), which categorized ideas from a geometry-based aspect as absolute, relative and relational space by interrelating to Lefebvrian manner (Figure 3.4). His absolute space calls that it includes specific and visible world, and precise calculation can be made, so grid plan, standard measurements, geometrical space of cadastral mapping (Euclidian geometry) are within the scope (Harvey, 2008). This type of space creates its pure information, which can be associated with existing values. After that, Harvey continues with the relative space by describing it as an unstable place of which changeability depends on the individuals or parties. Space resembles non-Euclidean geometries, which combined from multiple geometries and frames that are being relativized and by whom (Harvey, 2008). Here, space is defined independently from time like Einstein’s relativity theory (Graafland, 2010), and the position of the observer forms the space. As understood, relative space is associated with the perception, and it forms perceived values. Finally, relational space, attributed to the philosophy of Leibniz (Harvey, 2008), is based initially on time. So, the object or space is formed by both internal relations and external influences within time (Graafland, 2010). From the perceptual criticism, relative space can be called as an extension of absolute one but differently depending on time.
As a result of space concept (Figure 3.4.), the notion of value can be examined as the sub-topic of three headlines and Riegl’s typologies in two ways; perceived and existing. In other words, both two typologies link with their existing and perceived sides in the analysis of values in Zonguldak Case. While intrinsic, extrinsic, and

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Footnote 38: Triputial space concept is based on Ernst Cassirer, Henri Lefebvre and David Harvey.
economic values help to reveal the heritage documentation information, Riegli’s typology maintains a time-based value relation. Combining the typologies with Lefebvre’s space identification aims to define how the parties perceive the space and the real situation of space. The perceived values of the different actors are the most critical part of maintaining the presence of the site in order to connect the collective memories of the past and future (Şanlı, 2016). Besides, studying perceived value is essential in two ways; financing the heritage and convincing the decision-makers.
CHAPTER 4

CONSERVATION THROUGH INFORMATION TECHNOLOGY

4.1 Information Technology

With the evolution of information technology, virtual and physical space have started to feed themselves mutually (Figure 4.1). This intangible platform refers to the digital world. The power of the digital area emerged a new definition of space, called virtual. While virtual space initiated as the direct reflection of a physical asset, afterward, it turned into new interpretations of space. Today, the digital world, as the information technology in the heritage field is used most by heritage organizations and museums.

![Diagram](image)

*Figure 4.1. Digital and physical space relation designed by author (2019).*

The cultural value of the digital engagement and experiences can be disregarded since the limited actors would have a narrow vision in these assets, in which intricate relations occur. So, moving away from that merely museums and heritage organizations are focusing on the value of the digital world (King et al., 2016) will make sense for the process design. In another way, information technology is used

81
in contemporary society by nearly all disciplines. Some many applications or programs have incrementally increased to solve the complex problems in many fields. Also, in heritage preservation, new technologies are preferred for their simplification potentials to the complex data. Creative Mapping Technique (CMT) is one of the most known and used technology. This tool can be used for data production about the site, data presentation (story maps) about the site, and an action-based process. Besides, it is both subjective and objective inclusive language and a means of both social and artistic expression. It is to address urban and social issues and to show the dynamics of urban and living environments through mediating the physical world of the inner and outer body by disclosing the information from a broad overview to the fine structure at several levels of details. In the conventional method, revealing the heritage composed of a linear process, which is respectively research, documentation, analysis, presentation, participation. In the extended period, jumping through the process and contributing the users to each step are not appreciated. On the other hand, in the globalized world, accessibility to knowledge and easy editability become crucial topics in every scientific field as well as other interests.

On the account that online systems have primary access and can engage the broader community comparing to the joint presentation of heritage data. In serving the online heritage platform combining the five phases of preservation, the method for information data has to be well-defined in case of trustworthy. On the other hand, the digital world has ephemeral conditions. As defined in the UNESCO Digital Heritage Charter (2013), digital materials are often ephemeral and involve the retention of purposeful manufacturing, maintenance, and management. They can include a broad and increasing spectrum of formats like texts, databases, moving pictures, audio, graphics, software, and web pages (UNESCO, 2013). As a result, the relation between physical and virtual space brings up digital or virtual heritage. At that point, UNESCO defines the virtual heritage is as “the utilization of technology
for interpretation, conservation and preservation of Natural, Cultural and World Heritage” (World Heritage Committee, 1999).

4.2 Digital Heritage

After the initial digital show at the Imagine Conference in Monte Carlo in February 1993, the first virtual restoration case Cluny Abbey was recreated (Thwaites, 2013). Following years, the first Conference of Digital Heritage was organized in Bath, UK, with a series of virtual remodeling cases (Thwaites, 2013). Starting from these attempts, when the digital media guides the cultural and natural heritage by preserving its actual data, physical space turns into digital heritage. For UNESCO (2003), producing digital data and converting heritage information to the digital space through scientific, educational, administrative, technical, and other kinds of fields define digital heritage as a common heritage. In those studies, related technologies such as digital photography, 3D scanning or modeling, 3S (GIS, RS, and GPS), environment perception are used (Lu & Pan, 2010).

4.2.1 3D Modelling

Digitization of cultural heritage can be a crucial tool in today’s efforts towards the conservation, renovation, study, and promotion of European cultural resources (Figure 4.2). Detail information of artifacts is restored and modeled. Though there
are many potentials, if the details of physical space are lost, the digital heritage becomes a leading factor for the renovation. For instance, Notre-Dame is showing the importance of 3D digitization of cultural heritage sites as the latest enormous lost happened in May 2019 in Paris. On the other hand, the European Commission was discussing cooperation for the digitization of heritage artifacts, which can provide a digitally aided restoration just a few days ago from the fire.

4.2.2 Heritage Maps

With the globalized world, as Handal (2006) states that cultural and historical assets are commodified and commercialized by turning into a part of the economic regeneration policy in a built environment. In the postmodern era, economy-based regeneration has formed itself into a creative, open-access web-based platform. The built environment as a way of traditional representation is replaced through digital heritage called as mobilized heritage (Ch’ng, Gaffney & Chapman, 2013). With the platform, heritage can access broader populations; even the ones have not been visited physically before.

4.2.2.1 Geographic Information Systems

After the 1960s, GIS has developed as a tool providing geographical space database and coordinates. According to Lu & Pan (2010), Geographic Information Systems (GIS) emerged from 3S technology with its counterparts, Remote Sensing (RS), and Global Positioning Systems (GPS). The primary notion is getting information, processing, and application or using obtained data. Because of the well-defined data, archaeological artifacts can be preserved by this technique. On the side, a wider audience with a specific interest in growth and preservation, including researchers, local planners, and indigenous communities, can be provided by a broader range of
relevant information related to the potential development of tourism through a web-
based GIS (Ch’ng et al., 2013). Besides, meanings originate from user perception as
well as place attachment, memories, and values. As defined in Mundo Maya
Mapping Project (Ch’ng et al., 2013), the general principles and potentials of the
web-based GIS platforms are; combining, adding, and securing access to
cartography services; supporting a wide range of users and have a range of GIS
capabilities; having a highly scalable architecture and regular interaction; providing
valuable metadata and management services. According to Kokalj et al. (2013), this
website needs to integrate and serve multiple customers, including *environmental
leaders and public organizations*, who can plan, monitor and track developments
with the general public; *researchers* who model, analyze and simulate occurrences;
*private companies* who want to improve efficiency and prepare goods for added
value; and *public opinion* at large whom the website offers services. This multi-user
value can also be supported by different systems such as crowdsourcing.

4.2.2.2 Crowdsourcing

Crowdsourcing is a collective data collection system that serves a web mapping
platform. This type of system relates to human studies with the digitization of the
globe (Dunn & Hedges, 2012). This study evolves as the extension of less social
integrity to the conservation process. Hamdi & Goethert (as cited in Akkar Ercan,
2017) state that centralized government systems give hierarchically major decisions
for preserving heritage at the national or international level, so there is less
opportunity to integrate society to the process and to have wellbeing protection of
identity, sense of belonging and social continuity.

Following this situation, even the many heritage sites are preserved by UNESCO
and counterparts; the other ones are discussed to demolish in both developed and
developing countries. The main problem is lack of sources, under risk sites, non-
recognition of the value by local people or authorities, human conflict, or some other reason in that sites (Dhonju et al., 2018). Crowdsourcing is the applicable method, particularly in this situation, to achieve the information and create data. As an umbrella term, crowdsourcing depends on adequate involvement and quality input, so the design of them must reflect each initiative's specific approach, type, and context (McKinley, 2015).

Newcastle University executed a web platform so that the cultural heritage of the city becomes visible in the digital world. In this way, they can reach public users as well as use them as a source (Dhonju et al., 2018). In the system, there is an editorial approval system for each document so that compatibility and accuracy of the data exist (Figure 4.3). The overall web platform interface has three elements, respectively, a map, album management, and photo viewer (Dhonju et al., 2017). Volunteers are authorized to add new photos. According to the user-generated world

Figure 4.3. Typology for crowdsourcing\(^3\).

\(^3\) Typology for crowdsourcing cultural heritage (adaptation of Dunn & Hedges, 2012) taken from McKinley (2015).
(King et al., 2016), the storytelling can occur in a range of systems from highly scientific to non-scientific. The former should be only controllable with direct sources and edited by an expert. At this point, only proofed documents can provide accurate and objective information. The latter has every kind of information without using the filter, and the system is supported by an open layout to edit by everyone. These systems can be used in museum context / design / control / maintenance / build / support.

4.3 Mapping Technology and Creative Mapping Techniques

Mapping is the new age to teach, read, learn the information, and is a systematic outcome of a combination of thought processes, cognitive methods, technologies, and experiences (Hyerle, 2014). According to the Oxford Dictionary, the map is a diagrammatic representation which informs about physical features of a geographical location or a diagram, or a series of data showing spatial arrangement of an area. In another definition, the map is a mediator between an inner mental and an outer physical world, so the human mind can make sense of its universe at various scales by using this tool (Harley, 1987). On the other hand, it can be used as a documentary or a design instrument and a legal record (Nichols, 2012). From a design perspective, the mapping will be inherently a design problem within its contextual and conceptual framework and prepare for the advent of decision (Tawa, 1998). Mapping theory extends its boundaries by approaching the field from the interdisciplinary aspect to solve the limitations and weaknesses. At that point, the creative mapping techniques or CMT offers a new medium. Mitchell (2008) states that they are issued by local, territorially from nation to city. Also, he maintains that the motto of the new mapping technology is at the street level. From this perspective, the production of the architectural and urban environment is the issue of mapping (Stoppani, 2004). There is a redefinition of a language that forms the environment.
In this approach, the map has a radical power in the formation of society and physical structure because its ability leads to the reflection of social issues by transferring them to the building. Its the most determinant character is the integration of social structure to the geographical data (Table 4.1). This attribution can be observed in the lived space as the representational medium (Lefebvre, 1991). The recreation of lived space is one of the main subjects of CMT. Also, maps showing the (ideal or designed) relations in the site origin from Lefebvrian representation space. Also, perceived space is represented by mapping studies. As result, Corner (as cited in Alanyalı Aral, 2018a) argues that what makes mapping a remarkable architectural and urban development substance is that mapping is instrumental in designing and constructing living space; that it is a creative activity that exposes potentialities and offers new directions, unforeseen ideas and consequences by showing the world in new ways. Therefore, any architectural plan is a part of the living world filled with full impressions, expectations, memories, and predictions of the inhabitants and power agents associated with that space (Alanyalı Aral, 2018a). By this point of view, mapping studies in architecture transfer the ideological information that is expected to form the society. Considering the success of mapping the built environment, its

32 This diagram was presented before for the research techniques and ethics course given in the city and regional planning department of METU in 2018. It is reinterpreted from the study done previously in the class.
use in other fields has increased in time. For example, the problems occurring in heritage sites are tried to be revealed or solved in this way because of its capability for integration of social dimension. The fact that the main reason why heritage conservation attempts have mainly resulted in failure is a lack of social dynamics.

Mapping is a way of interpretation of a thing, event, or action in a visual aspect. Also, it is the best medium to transfer and reveal the relationships among concepts. Particularly, when the complexity is taken into consideration in the urban studies, inter-relations of the elements of the built environment or notions of the community can be understood and compared practically. That is why conceptual mapping as a mapping technology can be used in community-based or value-based heritage studies. In this dissertation, the conceptual mapping aims to create a bridge between theory and practice by matching the values created as a result of value definitions in the literature and expected to be answered by users. The marked notions, linking words are presented in a hierarchy by a graphic. This map guides us to grasp how ideas can be related to each other, can be translated into a manageable topic, and can generate questions to focus on the research.
In the discussion of the potentials and limitations of creative mapping techniques, there are a series of reasons and effects (Figure 4.4). First, mentioning the advantages starts with a combination quality of quantitative clarification with mixed method analysis complexity. It means a systematical examination of complex phenomena or relationships. For difficulties in studying feelings, time, body, senses, gender, and individual identity, CMT presents a language that is metaphorically and experientially similar to them. Also, it offers a unique way for study participants to reflect their experiences while helping researchers better understand the data collected so a more natural way of communication can be achieved compared to the writing of text because of the new form of human world representation quality of CMT. In that way, a public or subject's understanding of the map issue can exist.

*Figure 4.4. The mapping process (Buttenfield, 2012).*
Also, the collection and analysis of information can be realized by an interdisciplinary interaction. Second, the limitations and weaknesses of CMT can be listed with a few issues. Because of its peculiarity, several participants experience resistance when asked to create maps in site researches. Besides, maps can be difficult to read-interpret, so differences in the perception of people can limit the usefulness of maps in data collection. Unfortunately, the validation of data or the encompassment of all correct and sufficient information from the sources becomes a problem when the reliability of data is lack. Also, there is a difficulty in framing the analysis as its nominal restriction to deal only with a selected group of infinite dimensions and spatial reflections. As of last, the most critical issue is the risk of subjectivity. That is to say that while the data representation, the spatial structure on the map can not apply to the existing data situation, thereby distorting data presentation in the viewer's mind. The analysis can be made into an art object and can be incorrect or deficient in cartographic data, so the validation of sources and the methodology of the study becomes essential to reach an objective outcome.

The technical language also is an essential part of the discussions made in CMT. Krygier & Wood (2011) propose a series of strategies for how to classify and how to use sources as primary, secondary, or tertiary. Also, they describe a guideline to mapmakers how symbols, lines, colors, and words come together in a specific combination with regards to geographic layout. Before the representation, sources consist of qualitative and quantitative data. In the representation of data, the notion origins from achieving a practical map.
For this reason, several strategies or tactics can occur. The main components of visualization are point, line, and area in addition to main combination techniques, which are intensity, hue & saturation, size & rate, frequency. While qualitative data is represented usually by names, ranks, textures, colors, quantitative one is described by numbers, ratios (average, proportion, ratio) or sketches, icons, rankings, timing can be used in diagrams (Figure 4.5). The primary source is related to collecting data at addresses, GPS, cell phones, data collection on existing maps, which will be used in the case, remote sensing imagery and crowdsourcing (Krygier & Wood, 2011). Secondary sources are aggregation or classification of primaries, which can be traffic counts, vegetation types, scanned or digitized paper maps, regional and local government data and non-governmental organizations, and public domain data providers (Krygier & Wood, 2011) which the case study focuses. Tertiary sources are the reinterpreted versions of primary and secondary data like map-making from maps (Krygier & Wood, 2011). In all versions of maps, there is some piece of

![Figure 4.5. The presentation strategies for maps (Krygier & Wood, 2011).](image)
information shown with the map. They are the title, scale, explanatory text, legend, directional indicator, border, sources, credits, insets, keymaps or locator maps, and so on (Krygier & Wood, 2011). This information helps to comprehend the map and to prove the data scientifically.

![Diagram](image)

*Figure 4.6. Functional complexity and level of abstraction (Buttenfield, 2012).*

Following these discussions, briefly, creative mapping is an in-between situation between cartography and art (Buttenfield, 2012) (Figure 4.6). Both the social dimension is taken as data, and geographic layout is used as a medium to design the way of transferring the message. The percentage of valid or scientifically correct references determines the level of objectivity. The functionality of the data combination produces pragmatic outcomes. Lastly, the level of abstraction of the visualized data specifies the thematic quality of the map, and higher abstraction
results in subjectivity. In addition to all these discussions, there is also another topic to use CMT in different praxis. The use of CMT in the heritage sites or conservation issues has become a hot topic since the 1960s that industrial sites turned into abandoned sites.

Industrial heritage composes of different urban layers consisting the factory buildings and ruins of touchstone industrial sites that can be found in various areas (Xie, 2015). Most of them refer a milestone era in the industrial history which starts about the 18th and 19th centuries so they are critical evidence and have wealthy values for human history. On the other hand, documenting the whole data creates complexity in itself so plotting the data on a map or plan is seen as a distinctive and easy way to organize the information (Mason, 2002). In contemporary society, conventional preservation techniques cannot meet the needs of digitized data, mainly for the social aspects. Peckham (as cited in Smith, Messenger, & Soderland, 2010) states that intangible values like sociocultural can be regarded efficiently with the information technology or creative mapping techniques. That is why all around the world there has been interpretive uses of information technology such as story maps, interactive websites about the heritages. Even though numerous mapping styles are seen, a main classification can be described according to core differences of maps. The main variables constitute the representation technique. As defined in Table 4.2, a quarto clustering strategy is defined. First, multiple variables group exhibits complex relations among variables and a new language is produced. Second, between places and place cluster defines generally routes between critical places. Third, multiple actors group creates an inclusive process by integrating different people in many ways. Fourth, space/event and time cluster create the event/action or story passing through a remarkable space. Each cluster has its own potential for the information technology.
Nevertheless, even though these are used in representation as a solution to design problems, new problematic areas show up with urban progression. Notably, for heritage preservation, variable differences, and the authenticity of places vary incrementally. So, there can be formed an alternative cluster by defining variables and relation of them in those areas (Table 4.2).

Table 4.2. The four common creative mapping techniques made by author (2019).

<table>
<thead>
<tr>
<th>Multiple Variables</th>
<th>Betweenness &amp; Place</th>
<th>Multiple Actors</th>
<th>Space &amp; Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Concept</td>
<td>- Drift</td>
<td>- Gameboard</td>
<td>- Story</td>
</tr>
<tr>
<td>- Layering</td>
<td>- Route</td>
<td>- Community</td>
<td>- Mind</td>
</tr>
<tr>
<td>- Rhizome</td>
<td></td>
<td>- Participatory</td>
<td>- Behavioral</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>- Cognitive</td>
</tr>
<tr>
<td><strong>• Concept map</strong></td>
<td><strong>• Drift map</strong></td>
<td><strong>• Gameboard map</strong></td>
<td><strong>• Story map</strong></td>
</tr>
<tr>
<td>The relations between different concepts; constructivist approach</td>
<td>Situationist position</td>
<td>Participating process</td>
<td>Space and time oriented strategy</td>
</tr>
<tr>
<td>Philosophical</td>
<td>Reference: Guy Debord</td>
<td>Reference: Raoul Bunschoten’s CHORA-practices</td>
<td>Reference: esri story maps</td>
</tr>
<tr>
<td>Reference: Joseph D. Novak’s study at Cornell University</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>• Layering map</strong></td>
<td><strong>• Route map</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meta language</td>
<td>A travel between different locations</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>• Rhizome map</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Open ended, complex, indeterminate strategy</td>
<td></td>
<td>Reference: Gilles Deleuze, Felix Guattari</td>
<td></td>
</tr>
<tr>
<td>Philosophical</td>
<td></td>
<td>Reference: esri story maps</td>
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<tr>
<td>Reference: Gilles Deleuze, Felix Guattari</td>
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</tr>
</tbody>
</table>
4.3.1. Layering Map

In the layer map, the map maker forms a meta-language that includes a thematic issue. The technique emerged in the period when cities were growing, and the elements of urban forms became multiple. This multiplicity of elements concluded with the control and design process in the architectural and urban projects as well as city mapping strategies. Within those years, Bernard Tschumi and Rem Koolhaas, as a pioneer of this mapping, proposed separately two different projects for Parc de la Villette competition about the integration of an old slaughter area to a park in Paris city center in 1983 (Corner, 2002). In the study of layering, unseen elements in the physical environment like social, cultural values can be included in the map. In general, developed countries prefer to use this type of creative mapping technique in the explanation of public places. The elements of layers represent a thing or an event or a function. Also, the proximity and position of each element and position explain another relation of the site. In order to present spatial information of a complex area, layering creative mapping technique is used to reveal the system of this heterogeneous lived space environment. Also, this method involves the superimposition of various independent layers and produce these layers in a heterogeneous and thickened surface (Graafland, 2010). While each layer represents the relationship between different elements, in the end, layers are superimposed to reveal the intricate relations of the elements. Mapping all elements in one layer can be hard to comprehend the lived space, so division and repeating them in a particular sequence is the main idea of this mapping study. The advantage of this is to provide the superimposition of various independent layers by producing a heterogeneous and thickened surface (Alanyalı Aral, 2018a).
1982-1998 Parc de la Villette project (Figure 4.7), designed by Tschumi, was a milestone in the transformation of brownfield areas during the 90s’ post-modern or its late-Modern society and before this, was an area for central slaughterhouses on the northeast corner of the city. This project has been realized after won an international competition for the 21st-century urban park in the metropolitan area in Paris. It occupies nearly 50 hectares by 35 grid points or follies defined by the architect. The follies are both unique and arrayed in a repetitive sequence that guides visitors to maintain a sense of place through the large park. The project was thought of as a culture and socially oriented park that can support unusual and overlapping activities. The layers in the park are not a representation of existing data; they are the outcome of the intended content and structural process, which each of them has its internal cultural logic (Corner, 2002). They are formed in a series of implementation such as intersection, repetition, qualification, distortion, fragmentation. That is to say; the site design has an intricate program embellished with operational elements.
In the analysis of elements, technical and social information are revealed in a sophisticated manner.

Figure 4.8. Parc de la Villette Competition Entry (OMA, 1983).

The other version of the park (Figure 4.8) was designed by OMA office of Rem Koolhaas in 1982-1983. The proposed program content includes five stages which are respectively. First, the main programmatic components are dispersed across the site in horizontal bands (x and y directions), providing a continuous duration environment and a perpendicular (z-direction), rapid change in experience with minimum space maximum program content. It means that the site works as a social condenser based on horizontal congestion. Second, many services are distributed mathematically according to different point grids-kiosks, playgrounds, barbecue
spots through strips. Random dispersion of the program creates a maximum length of borders. The interaction is essential. Third, a "square wood" or points, grids, or confetti as elements of architecture is used to promote autonomous identity and mutual compositions of different activities. Fourth, connections or access and circulation are defined. The links from the central promenade to the main boulevards presents a well-defined urban project. Last, superimpositions realize. Elements are composed to reach maximum diversity in a systematic background.

4.3.1 Rhizome Map

“A rhizome as subterranean stem is absolutely different from roots and radicles. Bulbs and tubers are rhizomes. Plants with roots or radicles may be rhizomorphic in other respects altogether: the question is whether plant life in its specificity is not entirely rhizomatic. Even some animals are, in their pack form. Rats are rhizomes. Burrows are too, in all of their functions of shelter, supply, movement, evasion, and breakout. The rhizome itself assumes very diverse forms, from ramified surface extension in all directions to concretion into bulbs and tubers. When rats swarm over each other.”

(Deleuze & Guattari, 2005, pp. 6-7)

Deleuze & Guattari (2005) assert that social life is composed of semiotic, social, and material flows. There is both a connection to reality with reduced repetitiveness like maps and links between things like tracings. This situation corresponds to a rhizomatic activity, which includes burrowing and extending with its in-betweenness map and tracing. The name of this mapping is associated with its similarity to the
evolution of a plant. The action is rooted in a site and evolves through the environment. In this type of technique, the plural information is presented by conducting more than two sources. Deleuze & Guattari (2005) evaluate the technique in principles. The connection and heterogeneity explain the relations of elements and their differences. The multiplicity means that elements are interconnected, and each one has an effect and meaning that cannot be eliminated or disregarded from the whole. Even one element is ruptured, and the destruction of rhizome happens, the new related or compatible one emerges. This is called as assigning rupture (Deleuze & Guattari, 1987).

The more elements emerge through time, the more multiplicity combinations occur in a plane of consistency, and this plane (grid) is the inner component of all multiplicities (Deleuze & Guattari, 1987). In the general scope, the mapping process consists of stratification, territorialization, deterritorialization, reterritorialization, organization, signification, and attribution of data. It cannot be repetitive and reproduced since the purpose is to define a real state, to maintain balance in intersubjective relationships, or to explore an unconscious memory (Deleuze & Guattari, 2005). Alanyalı Aral (2018a) states that mapping as a rhizomatic operation describes a surface that is both inclusive and structuring new and open-ended relationship series that are represented by numerous and dynamic representation techniques and modes. Unlike centric or tree-like hierarchical structures, the rhizome is accented, non-hierarchical, and steadily spreads over several terrains (Corner, 2002). Briefly, multiple variables and complex combinations of them make this mapping reasonable. When the place locates in an underdeveloped country, rhizome as a mapping tool is preferred because of its adaptability to indeterminate conditions.
1812-1813 Napoleon's French Army's March to Russia, also known as Minard's Flow Map (Figure 4.9), was represented by Charles Minard in 1861 (Charles Joseph Minard’s Flow Map). This map illustrates the flow of the French army, the direction, the size, the geographical coordinates, and the latitude and longitude of the army, temperature, and dates. The army started from Polis-Russian Border with 422 thousand men in June 1812. The thickness of the brown root symbolizes the number of troops. Through the march, the disasters cause the elimination of some. Also, the breakaways occur to defend the army in different areas so it can be observed as a fraction of root. Finally, the army reaches to Moscow with merely 100 thousand soldiers in September. Until now, the geographical information can be obtained from coordinates as mapping characteristics. In the return part, the flow relates to tracing character. Unlike from trace, date, way, and number of people vary. According to the black line, only 10 thousand survive. Briefly, Minard narrates a story in different aspects of one plane. The aspect can have both numerical geographic data and social events. The variety of data classification makes rhizome mapping suitable for this type of story.
Esri reformed the other version of Minard’s Flow Map by using Web-based GIS (Figure 4.10). In this case, the layering strategy distinguishes from the usual qualities of rhizome mapping. The names of layers are given interactively as a legend on the left side of the page. While layers are sequenced in a homogenous order and express the data with the same order, the rhizome is apt to give data heterogeneously. Also, 3D or overlapping layers quality exhibition of changes about site geography or plan and social dimensions through the years can be observed better. Particularly, when thinking about the ambiguous situation of unprotected heritage sites, documented and analyzing these areas by implementing this technique would help to reveal the potentials and threats.

33It is retrieved from http://www.arcgis.com/apps/CEWebViewer/viewer.html?3dWebScene=2b48caaabd0e44028724c5f109f3de97, September, 2019.
CHAPTER 5

METHODOLOGICAL FRAME OF THE CASE STUDY

5.1 Proposed Value Based Approach

"Industrial heritage consists of the remains of industrial culture which are of historical, technological, social, architectural or scientific value. These remains consist of buildings and machinery, workshops, mills and factories, mines and sites for processing and refining, warehouses and stores, places where energy is generated, transmitted and used, transport and all its infrastructure, as well as places used for social activities related to industry such as housing, religious worship or education."

(TICCIH, 2003, p.1)

As understood from the previous discussion, heritage object exists and evolves intrinsically by depending on its surrounding environment or locality and its community or society. In other words, the existence of an object or site is formed through the time based on its local and personal variables within a theoretical view. This mutual triad relation is developed and changed through time (Figure 5.1). Under the usual conditions, the relations continue all time though values evolved and changed gradually since the alteration is inevitable. When dramatic or breaking events or actions cause an unusual process, the heritage space is destructed or reconstructed unnaturally. The community is also affected by this application concerning closeness
to the object. In that point, when one element has altered, others’ relation with this one and the process of relation should be documented and examined to understand the exact situation of one and to discuss the future. Because sustainable and fair evolution of space and place identity can be allowed, just only preserving the local values while letting emerging new values that are compatible with the new needs of communities (Akkar Ercan, 2016b). People can live both within their familiar historical environment and the new place that their needs met. Understanding the familiarity and the variables that created this familiarity is called as the first stage. Namely, examining the object is essential within its context when conservation of the heritage object becomes a matter (Poulios, 2014) since the intricate interactions of elements not only form the physical environment, but they also shape the perceived asset that occurs over time (Stephenson, 2008). For the heritage case, local variables consist of historical, social, economic, and planning contexts in the site and urban scale while personal or actor variables compose of community or related users. Values are formed by the combination of both (Figure 5.1). Also, they are part of upper and lower scales range from world to building structure.

![Triad relation diagram designed by author (2019).](image)

*Figure 5.1. Triad relation diagram designed by author (2019).*
The values, which are overlapping and heterogeneously broad variations in respect to time, consist of surface and embedded assets (Stephenson, 2008). At this point, the former one refers to directly perceived notions of the present, while the latter one represents all significance of the past. There is another triad relation in value formation that related assets of a specific time always tend to advance past threads and to weave them in the future (Stephenson, 2008) (Figure 5.2). The (embedded) past is associated with the good old days of the heritage setting. It means the site works in its original function. The present is a dramatrical decline in relations and values occurring time. Also, it is time to take precautions and to strengthen the links. The future is the ideal time that actors reconstruct heritage value. In a specific time, strong relations between actors and between locality and actors should be encouraged from a lower scale to the upper scale to achieve value compatibility.

![Figure 5.2. Value transfer relation diagram designed by author (2019).](image)

The presented value relation shown in Figure 5.2 can be valid for the industrial heritage sites when considering the process of deindustrialization and its effects on society and built environment after the 1960s for the world and 1980s in Turkey since the loss of relations arises. While the industrial sites were the dominant factor in
shaping the locality and society, they turned to only a commercial site or building that works for itself. However, stakeholders can take precautions by strengthening the potential relations of values (Torre, 2002). *From this point of view, investigating the Zonguldak case in terms of value relation process becomes important since this city presents an excellent example of the evolution of a typical industrial city from industrialization to deindustrialization in the context of Turkey.*

Table 5.1. *The code list for value set*[^34]

<table>
<thead>
<tr>
<th>Economic Value</th>
<th>Technical or Technological Value</th>
<th>Identity Value</th>
<th>Aesthetic Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political Value</td>
<td>Symbolic Value</td>
<td>Sociocultural Value</td>
<td>Document Value</td>
</tr>
<tr>
<td>- civic/social life decisions. - governmental behaviors. - civil activities or reactions.</td>
<td>- representation of a notion, individual, event, period or party. - interpretation of ideology of one period or situation remnants.</td>
<td>- social position. - cultural background. - changing factor on life.</td>
<td>- specific production/construction technique, material, history, art, daily life etc.</td>
</tr>
</tbody>
</table>

[^34]: It was used in the first stage of coding scheme.
within time. It helps to reveal the alteration of context and values. For this part, decades, which are the 1970s, 1980s, 2000s, are analyzed as the breaking point on the history of the facility. The concept of space forms the basis of the value discussion on perceived and existing types. Namely, it provides value classification based on the source of data. The current value emerges from the relations of organic space by reviewing archive and literature data. The perceived value aims to present the perceptual and symbolic space through the in-depth interviews done by authorities, researchers, and past users. When the continuity in value occurs, the perceived past and present conditions match (Poulios, 2014). Herein, the potentials and losses become determinant. Also, the boundaries and relations of actors specify the discrepancies and similarities of perceptions in setting the new values and proposing the future existence of the site. Even if there is no continuation of the existence of the object, it may be possible to study the future of similar objects through the arrangement of relations with the people.

5.2 Revealing Values with Primary Sources

The site survey, consisting of taking photographs, archival research, and doing interviews with ten persons under semi-structured open-ended questions, forms the value-based history and analysis of values by mapping. It has occurred at different intervals by taking two months. The comparative and mixed-method research analysis of the archival data and in-depth interview reveals the values of the Zonguldak case. The difference of qualitative research stems from the validation typology of information that social sciences benefit efficiently (Vasconcellos, 2014), while the mixed method enhances a comparative analysis of social units by conversion into statistics (Lieberman, 2005). In both methods, the elements of the social environment, which are identified by the result of relations of certain phenomena, need to be studied with an inclusive interpretation of all elements to existing data (Vasconcellos, 2014).
Like nature, the attitude of the researcher becomes significant during the study, so the order of questions varies during an in-depth interview. In order to provide appropriate site research, interview scope and method compose with the help of a literature review in the world, Turkey, and the Zonguldak city scale. With the light of contextual information on the site, boundaries occur. The questions consist of five sections with the help of mapping studies of Sepe (2013) and previous thesis works (İşın, 2009; Uzunoğlu, 2008; Çalhan, 2008). The sections of the interview are demographical information of attendant, Zonguldak city, surrounding environment, site, and general evaluation questions (Figure 5.3). First, demography questions provide personal data, which helps to classify the profile of attendants and to understand the background information of the participants. Second, questions about Zonguldak city reveal the experienced social, economic, and cultural life of individuals. Third, the surrounding environment questions aim to exhibit the perceived data about the relations among harbor, railway, and Gazi street, the main public street of the city center. Fourth, site questions clarify the economic, social, architectural conditions of heritage building complex and perspectives of participants about them. Finally, the personal position of interviewee about the situation of Central Scrubber and City helps to clarify and summarize with general evaluation questions. The transcripts and questions of interviews are in appendices. On the other hand, the design of questions aims to reveal the previously defined eight perceived values for the Zonguldak case. In that point, the code list for the value set helps to form the thematic conceptual mapping of matching value-question ideas (Table 5.1). Namely, each question plans to take some expressions for specific values, as shown in Figure 5.3.

35 The eight of them is added in the transcripts. Also, there is omitting of irrelevant or out of context sentences and some words which present personal identity.
By taking, based on this information, the participant’s profiles are last site workers, decision-makers, researchers (Torre, 2002). These individuals or groups are classified in terms of their relationship with the site. Most of them were born and have lived in Zonguldak for many years. The groups are that decision-makers (a01, a02) who have substantial power to shape site’s future, site workers (b01, b02, b03) who studied during the last active period of the facility, and researchers (c01, c02, c03, c04, c05) who have a direct investigation on site. For the interviewees, there is an alphabetical coding system to define their relationship. Decision-makers (a01, a02) are from TTK
and Zonguldak Municipality, and their working experiences date back to at least 25 years. The former one is an MSc city planner while the latter is an architect.

Site workers (b01, b02, b03) are one operation mining engineer, one last manager (formerly electrical engineer), and one retired supervisor mining engineer. All of them are the last workers in high statues. Also, the last manager’s working experience at the harbor after the close of the central scrubber is notable. Researchers (c01, c02, c03, c04, c05) are from various institutions like TTK, ZOKEV, and Bülent Ecevit University. Their profile ranges from an engineer, technician to an architect. One of the researchers, as an architect in TTK, has a significant relationship with the history of the site in different aspects. Besides, this researcher is a member of ZOKEV and Chamber of Architects. Also, the studies of this researcher in the heritage conservation registration and student competition process are distinct qualities as an interview participant. The other researcher is an individual writer, as well as being a retired mining technician and engineer. The various published books and articles of this researcher and the foundership of the mining museum are the primary criteria in the selection of this participant. By taking base this researcher’s well-detailed personal archive obtained from the city library and foreign engineers and architects who worked in essential projects of Zonguldak, the evolution of the urban fabric can be analyzed. The third researcher is a retired mining worker of TTK and one of the founders of ZOKEV as well as being graduated from two years apprentice school of EKI. The last two researchers, one of them is retired, are academic members of the mining engineering department of the university. Also, they were supervisors at the competitions and ones of the contributors to the site closing technical research report

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Nearly 120 people found Zonguldak Culture and Education Foundation in Zonguldak in 1995. The scope and aim are defined in its official website as: the emergence of a new type of civil society organization that shows that people with different understandings and tendencies coming from the grassroots, step by step, can be together with a democratic and pluralistic understanding for consistent and realistic purposes.
of the university. Moreover, they are still in active relation with the chamber of mining engineers.

Table 5.2. The general information about interviews.

<table>
<thead>
<tr>
<th><strong>Interview Type</strong></th>
<th>semi-structured in-depth interview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interview Time and Form</strong></td>
<td>8 face to face interviews in Zonguldak within 5 days and 2 e-mail interviews</td>
</tr>
<tr>
<td><strong>Interview Duration</strong></td>
<td>30 minutes to 1 hour</td>
</tr>
<tr>
<td><strong>Number of Attendants</strong></td>
<td>10</td>
</tr>
<tr>
<td><strong>Profiles of Attendants</strong></td>
<td>2 decision makers (a01, a02), 3 site workers (b01, b02, b03), 5 researchers (c01, c02, c03, c04, c05)</td>
</tr>
<tr>
<td><strong>Projected Site Relation Year</strong></td>
<td>1970s, 1980s, 2000s</td>
</tr>
<tr>
<td><strong>City Experience</strong></td>
<td>more than 10 years (partially or uninterrupted)</td>
</tr>
<tr>
<td><strong>Question Types and Sections</strong></td>
<td>Open-ended questions with Demography, Zonguldak City, Surrounding Environment, Site Sections</td>
</tr>
<tr>
<td><strong>Projected Values</strong></td>
<td>technical or technological, document, sociocultural, political, aesthetic, symbolic, identity, economic</td>
</tr>
<tr>
<td><strong>Analysis Type</strong></td>
<td>mixed method research</td>
</tr>
<tr>
<td><strong>Analysis Strategy</strong></td>
<td>thematic concept mapping, value mapping</td>
</tr>
<tr>
<td><strong>Analysis technique</strong></td>
<td>both inductive (through line by line coding) and open coding technique</td>
</tr>
</tbody>
</table>

For the time boundary, the main focus in the 1970s, 1980s, and 2000s (Table 5.2). In the contextual study, the history of the case has some significant breaking points. In terms of the highest coal production efficiency, the statistics represent 5 million tones of saleable coal production at the end of the 1960s and the beginning of the 1970s reported by TTK. So, this period can be a golden age for the site. By contrast to the wealthiest days, the number of products and employees decrease, in general, starting from the end of the 1970s. In pursuit of the shutdown of the central coal wash facility, the 2009-2010 period is the milestone for the continuous fall in production and workforce. Consequently, mentioned decades are one of the factors both in the structuring questions, guiding interviews, and analysis. During the interview, the research title, context, and flow of interviews are introduced. The use type of personal
information of the interviewee is explained. In the end, the talk is concluded kindly. All face to face interviews is audio-recorded. The duration of meetings ranges from half an hour to one hour, depending on the position and atmosphere of talk.

After the site survey, the comparative research of archival data with the interview and the mixed-method research of interviews make visible the values of the central scrubber area with the Zonguldak city. In these studies, the inductive perspective to go on sincere (through line by line coding) and open coding strategy to reveal new statements provide a thematic analysis. In this point, Braun & Clarke propose a six-stage guide to conducting thematic analysis, which is a useful framework for in-depth interviews as qualitative research (as cited in Maguire & Delahunt, 2017). These are, respectively, familiarizing with the data, generating initial codes, searching for, reviewing, defining themes, and writing up. As well as this method, Taba (1962) and Ornstein & Hunkins (1998) (as cited in Sherborne, 2014) propose a three-stage strategy for detail analysis through the implementation of concept mapping. Respectively, these stages are specification and organization of content according to technical, visual, communication, social aspects (keywords, codes, ideas, subthemes, sequence); selection and organization of technical perception (collective and individual or group idea); evaluation of the resulting interview (Sherborne, 2014). By combining and adapting these two stage-based strategies, the obtained data from the site survey is scrutinized in a series of stages respectively;

- collecting data,
- coding the information according to values and context
- categorizing into themes and subthemes,
- deducing the links and ideas.

In this way, not only a proper investigation of interview data has also been achieved a clear understanding of findings can be realized visually. In that point, multiple variables cluster mentioned in the fourth chapter helps to analyze the complex
relations among actors, values, and contextual information (Graafland, 2010). At the end of the stages, comparative research reflects the value-based history, rhizome, and layering maps. The mixed-method research produces the concept and value maps of Zonguldak central scrubber and city. The rhizome and layering mapping of the city and site present the archival information visually. The rhizome explains how the number of productions entered into the washing facility had changed along its railway route concerning workforce rates in time. In this study, spatial knowledge helps to understand the effect of destruction in a productive city. On the other hand, the aim of restitution or layering mapping which encompasses evolving site plans year by year is to document the history of the built environment of the central scrubber and observe the process within the site scale, starting from the construction year, 1953 to the last destruction year, 2011. The conceptual and perceived value maps present the mixed-method research outcome by focusing on the interviews. In the conceptual mapping, there are two different outcomes, which are a comparison of pre/after interview and city/site scale-based revealed values.
Though the value-based approach proposes a typological analysis in separated terms, values cannot be thought independent from each other, in other words, one-dimensional (Köse, 2018; Torre, 2002). Factors or codes which determine one value play a role in the formation of another value. This situation stems from the relationship between the factors and the actors. The variations of relations determine the set based on the contextual background of the site. In other words, as proved by the site and archive survey, values are defined concerning the site.

Figure 5.4. Juxtaposition of all questions designed by author (2019).
From this point of view, the first concept map aims to compare the pre and after interview process in terms of expected values to reveal by questions to grasp how the ideas emerged through the personal interviews (Figure 5.4). At that point, the expected values of questions match with answers specific to the position of the actor. In this way, it is possible to test the compatibility between pre and after the process (Torre, 2002). The decoding of each answer is based on the guideline of value definitions, and it provides the missing/adding and justification of the pre-interview process (Figure 5.5). However, the context of the sentence defines the emerged value of the answer. So, it can be said that there is no direct selection and matching of keywords. The interpretation of the selected keyword within its sentence and links before and after becomes essential in this mapping. Also, maps present quantitative data as well as the comparison of the perception of three groups. The idea of diagrams emerges from the strategical background of mapping studies mentioned in the fourth chapter.

Figure 5.5. One of the interview analysis scene.
For the analysis of mapping, the sample group composes of three groups as decision-makers, site workers, and researchers (Torre, 2002) (Figure 5.6). The colors represent the section questions mentioned before. The dark black lines refer to that all group members mention this value, although the question does not mean to ask. The black lines explain that some interviewees mentioned this value despite the question that does not intend that value. When the question wants to refer one value, but some parts of group members do not mean that dark grey lines are used to explain this situation. For the light grey, it means that no one mentions this value despite the expectation from the question. The differences and similarities of actors' perceptions can be the outcome of this analysis. Also, the difference between practice and design of an interview can be seen in the sixth chapter.

![Perceived Value Analysis of Interviews](image)

*Figure 5.6. A partial view from outcome*

The second conceptual map shows the reclassification of answers concerning the three sections of the interview to understand the conventional and different notions about the city and site (Table 5.3). However, these three parts decrease into two in order to compare the relations between scales explicitly, so this analysis composes of city and scrubber sections. While the city finds out values related to characters, policies, problems of urban and regional, scrubber elaborate them in site scale. This coding scheme forms through the answers and their relations to the site.
Table 5.3. The coding theme list prepared by author (2019)\textsuperscript{37}.

<table>
<thead>
<tr>
<th>City</th>
<th>Central Scrubber</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A1. City Character</strong></td>
<td><strong>B1. Meaning of Scrubber</strong></td>
</tr>
<tr>
<td>1. City of Coal or Mine</td>
<td>1. Politic, Economic and Technologic Value</td>
</tr>
<tr>
<td>2. City of Labor or Capital of Labor</td>
<td>2. Symbolic and Identity Value</td>
</tr>
<tr>
<td>3. City of Retirees</td>
<td>3. Socio-cultural Value</td>
</tr>
<tr>
<td>4. City of University</td>
<td>4. Document Value</td>
</tr>
<tr>
<td>5. City of Harbor or Typical Coastal City</td>
<td></td>
</tr>
<tr>
<td>6. City of Forestry</td>
<td></td>
</tr>
<tr>
<td><strong>A2. Coal Field Management Policy</strong></td>
<td><strong>B2. Technologic Efficiency</strong></td>
</tr>
<tr>
<td>1. Strong Autonomous State EKİ and Power</td>
<td>1. Water Infrastructure</td>
</tr>
<tr>
<td>2. Weak Autonomous TTK and Municipality</td>
<td>2. Manufacturing Infrastructure</td>
</tr>
<tr>
<td><strong>A3. Development Policy</strong></td>
<td><strong>B3. Economic Efficiency</strong></td>
</tr>
<tr>
<td>1. Region-based Approach</td>
<td>1. Golden Age</td>
</tr>
<tr>
<td>2. Alternative Sectors</td>
<td>2. Downfall Period</td>
</tr>
<tr>
<td>3. Tourism Sector (natural, industrial, railway)</td>
<td></td>
</tr>
<tr>
<td><strong>A4. Planning Scenario</strong></td>
<td><strong>B4. Comprehensive Planning by Geo-politic Situation</strong></td>
</tr>
<tr>
<td>1. Incompatible Urbanization</td>
<td>1. Being in the City Center and Closing to Railway &amp; Harbor</td>
</tr>
<tr>
<td>2. Urbanization by Linear Growth</td>
<td>2. Holistic Operation System</td>
</tr>
<tr>
<td>3. Shrinking City</td>
<td></td>
</tr>
<tr>
<td><strong>A5. Transportation</strong></td>
<td><strong>B5. Environmental Pollution</strong></td>
</tr>
<tr>
<td>1. Lack of hierarchy and road</td>
<td>1. Noise or Sound</td>
</tr>
<tr>
<td>2. Poor Conditions of Road Structure</td>
<td>2. Coal Waste in water or air</td>
</tr>
<tr>
<td>3. Potential of Passenger Railway Transportation</td>
<td>3. Conveyor Belt from Scrubber to Balkaya</td>
</tr>
<tr>
<td>4. Potential of Coal Railway Transportation</td>
<td></td>
</tr>
<tr>
<td><strong>A6. Environment</strong></td>
<td><strong>B6. Dissatisfactions</strong></td>
</tr>
<tr>
<td>1. Green Character</td>
<td>1. Aesthetic Reasons</td>
</tr>
<tr>
<td>2. City Stairs</td>
<td>2. Non-use</td>
</tr>
<tr>
<td><strong>A7. Social Facilities and Character</strong></td>
<td>3. Industrial Being</td>
</tr>
<tr>
<td>1. Unplanned or Planned Socio-culture Life and Activities</td>
<td>4. Competition</td>
</tr>
<tr>
<td>2. Community Spirit</td>
<td>5. Lack of Meaning</td>
</tr>
<tr>
<td>3. Coal Character Reflection on Built Environment</td>
<td></td>
</tr>
<tr>
<td>4. Fener, Bağcılar neighborhoods</td>
<td></td>
</tr>
<tr>
<td>5. Gazi Pasha Street and Scrubber</td>
<td></td>
</tr>
<tr>
<td><strong>B1. Meaning of Scrubber</strong></td>
<td><strong>B7. Closing Reasons or Factors</strong></td>
</tr>
<tr>
<td>1. Politic, Economic and Technologic Value</td>
<td>1. Liberalization</td>
</tr>
<tr>
<td>2. Symbolic and Identity Value</td>
<td>2. Size of Area</td>
</tr>
<tr>
<td>3. Socio-cultural Value</td>
<td>3. Termination of economic life (no rentability)</td>
</tr>
<tr>
<td>4. Document Value</td>
<td>4. Old Technology respect to mobile scrubber</td>
</tr>
<tr>
<td>5. Coal Character Reflection on Built Environment</td>
<td>5. Decreased Production and Manpower Rates</td>
</tr>
<tr>
<td><strong>B2. Technologic Efficiency</strong></td>
<td>6. 90-91 Strike</td>
</tr>
<tr>
<td>1. Water Infrastructure</td>
<td></td>
</tr>
<tr>
<td>2. Manufacturing Infrastructure</td>
<td></td>
</tr>
<tr>
<td><strong>B3. Economic Efficiency</strong></td>
<td></td>
</tr>
<tr>
<td>1. Golden Age</td>
<td></td>
</tr>
<tr>
<td>2. Downfall Period</td>
<td></td>
</tr>
<tr>
<td><strong>B4. Comprehensive Planning by Geo-politic Situation</strong></td>
<td></td>
</tr>
<tr>
<td>1. Being in the City Center and Closing to Railway &amp; Harbor</td>
<td></td>
</tr>
<tr>
<td>2. Holistic Operation System</td>
<td></td>
</tr>
<tr>
<td><strong>B5. Environmental Pollution</strong></td>
<td></td>
</tr>
<tr>
<td>1. Noise or Sound</td>
<td></td>
</tr>
<tr>
<td>2. Coal Waste in water or air</td>
<td></td>
</tr>
<tr>
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<tr>
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</tr>
<tr>
<td>1. Aesthetic Reasons</td>
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<tr>
<td>2. Non-use</td>
<td></td>
</tr>
<tr>
<td>3. Industrial Being</td>
<td></td>
</tr>
<tr>
<td>4. Competition</td>
<td></td>
</tr>
<tr>
<td>5. Lack of Meaning</td>
<td></td>
</tr>
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<td><strong>B7. Closing Reasons or Factors</strong></td>
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<tr>
<td>3. Termination of economic life (no rentability)</td>
<td></td>
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<tr>
<td>4. Old Technology respect to mobile scrubber</td>
<td></td>
</tr>
<tr>
<td>5. Decreased Production and Manpower Rates</td>
<td></td>
</tr>
<tr>
<td>6. 90-91 Strike</td>
<td></td>
</tr>
<tr>
<td><strong>B8. Proposals</strong></td>
<td></td>
</tr>
<tr>
<td>1. Public Use</td>
<td></td>
</tr>
<tr>
<td>2. Museum or Culture Center</td>
<td></td>
</tr>
<tr>
<td>3. Reused by TTK</td>
<td></td>
</tr>
<tr>
<td>4. Competitions</td>
<td></td>
</tr>
<tr>
<td>5. New Sectors</td>
<td></td>
</tr>
<tr>
<td>6. Building Parts</td>
<td></td>
</tr>
</tbody>
</table>

\textsuperscript{37} It was used in the city and site scale concept mapping of interview analysis.
This scale-based strategy forms secondary themes under the main scales for the perceived values. Because of the scope boundary of the thesis, the conceptual mapping analysis focuses on the perception of city character, socio-cultural facilities, and the general aspect of the central scrubber. The critical clouds and their related values are listed with the references of actors regarding the elimination of frequency of one value in the same person and actor to provide a balance between actors. As the nature of this value coding system, one type can be evaluated out of ten. However, the frequency of one idiom within a specific actor becomes essential in the classification of sensitivity to the related value. In both ways, the frequency guides the visual explanation of perceptions. Even though the informative presentation of maps (Prodan, 2014), the reliable outcome is acceptable for the selected sample for this case. For future studies, it can be a reference to study, but the results cannot be generalized to the whole city. In other words, these graphics show the perception of particular people who are chosen studiously in terms of the fact that they lived at a similar period in the city and were at different positions and relations with the site.
Each mentioned term is classified in the values based on its related context. There are four essential criteria in the analysis (Figure 5.7);

- Each value is considered in a period (Prodan, 2014). The past symbolizes old experiences and perceptions of the groups. The present explains destruction on the site with the effect of them on the views of groups. That is why the division year is selected as 2011 which is the last destruction time of the building part, coal grading unit.
The mentioned frequency is out of ten, considering the number of actors. It means that the value of the term is calculated only once even the same person talks about various terms under the same value. The notion of this person is recorded as an alternative term for the description of the city. The main reason is to provide a balance among actors.

There is a heterogeneous group of actor distribution. The percentage of actors is based on their numbers, so there is a correction factor for each period.

The scale of letters presents the expression ratio among the sample group for one value. The more prominent letter refers to the highest mentioned ratio comparing to other groups. If the letters are on the same size, there is a homogenous amount of expression for this value. However, the group letter does not exist if no one mentions about this value.

On the other hand, three main points are essential in the formation of concept mapping analysis. First, defining common key questions constructs a foundation between all interviews (Hassard, as cited in Sherborne, 2014). At that point, some central ideas and links among questions and values arise. At the end of the stage, a logical sequence that is seen every day in all texts will be represented. Second, common or foundation concepts and individual or higher concepts are formed so that the concept map can make well-designed navigation for differentiated perceptions through the interview (Sherborne, 2014). Third, the evaluation of codes and relations are presented in a concept map or other kinds of creative mapping, as mentioned in the following chapter. In this part, it is shown how the evolve ideas through the years. Overlaying the similarities or continuities and highlighting the differences or discontinuities is the last strategy (MacDaniel et al., as cited in Sherborne, 2014).

To conclude, as described in the industrialization process of the city, it can be said that community perception is parallel to the planning process and the policies on the minefield. The profound knowledge from the actors is recorded. The outcome of the
research is fed as the nature of it. Although the primary focus of the interviews is the last period of the site, general recording views help to grasp the background of the position of actors since the coding of ideas can realize in light of these aspects. Also, the well-defined literature of the city guides this process. In other words, although there is a necessity of examining the site in detailly, the scope of research stems from the meaning of city and site. City character and social facilities are scrutinized for the city scale. The outcome of other parts is explained within the existing values to reinforce the information by reference to the interviews. For the site scale, related values are visualized with their descriptions in the mapping process.

In addition to the discussion, revealing values will make a clear understanding of site situations and help to identify the missing linkages, inconsistencies, false assumptions for stakeholders (Vilela et al., as cited in Sherborne, 2014). In this way, a conservation process can be designed by defining the anchor points and concise actor-site relation sequence. In other ways, the output of this study can be used in further conservation system-based projects. There are some potentials and advantages of the concept mapping qualitative research for revealing heritage values. First, framing big-picture thinking is more effective than traditional text documents. Also, a distinct network of notions is constructed in a thematic view. Afterward, the potential for working together becomes the forefront. Finally, the complexity of data is eliminated to a clear definition and visual representation. Conversely, there are some problems in concept mapping analysis. There is a risk to generalize the outcome due to the limited number of attendants and groups to interviews and limited time and environment, which the researcher can contact, and it causes unrevealed information. That means the complete information for the site cannot be apprehended. The attendant to interviews is voluntary, so the rest are ignored. On the contrary, simplification quality of the complex communication problems and relations make a conservation management plan in a short time for under risk areas. Also, it has the potential to broaden its
potential through the design of inclusive conservation process. The consensus and involvement of diverse groups can be enhanced.
The coal basin region consisting of Zonguldak, Bartın, Karabük, Amasra has been the critical geography in the industrial history of the country since the discovery of coal (Figure 6.1). Therefore, the history of the area can be divided mainly into two; Ottoman Period between the 1800s and 1920s and the Republican Period from 1923 to the present. During the Ottoman Empire, Zonguldak was a coastal neighborhood of

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38 ZBK (Zonguldak, Bartın, Karabük) Coal Basin Region Boundaries based on 1964 Zonguldak Pre-Plan and 1958 TTK Basin Field Map, revised by the author (2019).
the village of Kastamonu,\textsuperscript{39} Bolu-Ereğli. It has been a different city with its coal mining character, which affects the lifestyle of each people in both periods.

According to Bolu Vilayeti Salnâmesi, hard coal, yanartaş, was found respectively by Hacı İsmail and Uzun Mehmet in 1822 and 1829 under the command of II. Mahmut. The latter one became the pioneer factor for the establishment of coal management and mining activities with the effect that was a requirement to meet the needs of the energy of the Ottoman navy and the whole country since there were ongoing disagreements within countries and incremental necessities to be independent for energy. Also, it led the interest of foreign capital on the city, and coalfields were run by France, England, German, Belgium, Russian, Greek, and some local companies as well as public authorities.

In a broad sense, considering the Zonguldak context with Ottoman and Republican Period would be helpful to grasp the background of city form and life. The prior period was organized respectively by Ereğli Colliery Company, Main Treasury Administration (1848-1865), Marine Ministry (1865-1909), Ministry of Commerce (1909-1920) (Figure 6.2). The latter was managed by Ministry of Finance (1920-40), ETİBANK & EKİ: Ereğli Coals Enterprise (1940-1957), TKİ: Turkey Coal Enterprises (1957-1984), TTK; Turkish Hard Coal Institution (1984- present) (Figure 6.1). Each period has its priorities and dynamics, but Marine Ministry Management and EKİ come to the forefront. Both witnessed the liability and its effects in the coal basin. The essential urban developments were realized in those times due to their single and state-based power in control. While there were various coal companies in different beds under the control of the Marine Ministry, EKİ was not only controlling also manage the beds. That is why EKİ could realize crucial urban projects.

\footnote{In that time, cities were called as the state (eyalet) that composed respectively of the village (sancak or liva), town (kaza) and district (karye) (Karaoğuz, 2017). Zonguldak was located in the village of Bolu, Ereğli town.}
Figure 6.2. Zonguldak Ottoman Empire Period prepared by author (2019).
All around the world, industrial sites are thought with railway infrastructure and marketing facilities since not only mining also transporting and marketing the coal is essential to make money or meet energy needs. For this reason, the urban fabric of industrial sites, particularly centers, is started to be formed with the construction of the harbor, railway and marketing facilities, or coal washery unit for mining. The same situation is appropriate for the Zonguldak case. Even though essential developments were not realized till Ottoman Marine Ministry, increased capacity of coal basins led the discussions of designing the process of mining with the environment in the middle of the 19th century (Figure 6.2). Consequently, the urban formation can be thought with five phases in Zonguldak city center.

6.1.1.1 Birth of Coal Transportation

Figure 6.3. 19th Century Zonguldak Coalfield Boundaries\textsuperscript{40}.

\textsuperscript{40} It is retrieved from personal archive of M. Ekrem Zaman (2019).
When two mining engineer brothers, John and George Berkeley, came to the field, they inaugurated Kozlu and Üzülmez pits in the coastland (Ersoy & Şengül, 2001; Zaman, 2012). Following this, the first production was made by new management, the English Colliery Company. Zonguldak, Kozlu, Kilimli became one of the prominent basins in the field in the same period. Many foreign companies managed the site. In time, increased profits and energy potential of coal made the region come to the forefront in the Ottoman Empire. After English and French armies had controlled the coal furnaces, Ottoman Sultan I. Abdülmecit nationalized the site and ordered the mapping of the boundaries of the coalfield area in 1848 (Figure 6.3). Afterward, the Main Treasury Administration (1848-1865) used this map while controlling and legalizing its management (Zaman, 2004; Çatma, 2014a). In Crimcan War (1854-1856), the need for energy increased the dependency on coal (Karaoğuz, 2017). In that period, the potentials of geography like the Üzülmez river were used for transportation, so the river has the power to form coal pits and settlements along with itself.

While new furnaces started to be opened, the new modes of transportation became inevitable. English engineer Barklay and 8 mining supervisors were employed for research to ease the conditions of coal loading and shipping to İstanbul. The result of the study ended up with construction of narrow-gauge railways to coalpits of Çaydamar, Üzülmez, Kilimli realized by English company in 1850s (Figure 6.4). The other name was dekovil line which is the range of rails is 60 cm in width or less and a small railway whose cars are driven by steam, human or animal power. This essential implementation changed the future of Crimcan War because transportation of coal was difficult process between 1853 and 1856. In addition, there were small scale wooden coal loading docks known as oluk, in each enterprise in Kozlu, Üzülmez, Çaydamar, Баğlık, Kilimli but there was a lack of main port.
Improvements in production machines of factories were required the most significant amount of energy in Istanbul; however, the workforce and technological capacity of the coalfield was not suitable to meet the needs. In order to speed up the development process, the coal basin turned into control of the Marine Ministry (Zaman, 2004). Therefore, Dilaver Pasha Regulations (1867) was declared to improve technical infrastructure, urban structure, working conditions, hours and health services, accommodation, and holidays, although it published a compulsory working rule named as liability for 14 villages (Barutçu & Uzar Özdemir 2017). Coal basin

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*Figure 6.4. Zonguldak Coalfield Region Boundaries*.  

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41 It is based on 1964 Zonguldak Pre-Plan and 1958 TTK Basin Field Map, revised by the author (2019).  
42 Dilaver Pasha Regulations or Ereğli Imperial Mines Regulations, were eliminated partially in the years of 1882, 1906, 1921 and it was canceled in 1954, besides; 21-35 article of 5th section of the law stated that Maden-i Humayun Administration enacted a regulation which provided a forced labor for basin from 13 to 50-year-old male population in 14 towns of Ereğli (Zaman, 2004; Quataert, 2006). Besides to work at the mining basin, these people also worked at their farms and paid Aşar and Ağnam
(Havza-i Fahmiye) were including six regions, Alcağzi, Kozlu, Zonguldak, Kilimli, Çatalağzi, Amasra in that period and there could not be any settlement or construction on site without allowance of Marine Management (Zaman, 2004). The economic value of coal basins was thought regarding coal’s reserve, grade, and ease of transport in that period (Zaman, 2004). To conclude, the initial steps in the formation of Zonguldak city emerged from economic and politic reasons.

6.1.1.2 Birth of Urban Fabric with Industrialization

On 3 March 1877, to provide continuance shipping despite unstable weather conditions, Mehmet Pasha declared Improvement of Basin Plan consisting of some transportation implementations, particularly for Zonguldak (Çatma, 2014a). Basin plan was essential in terms of being a study that brought forth the urban ideas determining the beginning of Zonguldak City. Also, the critical articles of Basin Plan were about constructing a harbor, a tunnel from Kozlu and Kilimli Mines to Çatalağzi Mine (Çatma, 2014a). One of the productions of the plan was Teskere-i Samiye (1879), which shows the boundaries of the basin and expropriated the basin. This law has been valid till 1984 (Zaman, 2004).

The urbanization story of the city began with the increasing problem of coal loading and shipping mainly to İstanbul and through the country at the end of the 19th century. A systematic approach for production management caused that harbor transport mode started to be a hot topic with railway transportation. Zonguldak, Çaydamar, Üzülmez, Kilimli dekovil railways extended, and Çatalağzi station was built (Zaman, 2004). Even the construction of harbor started in Kozlu; it was canceled and implemented in taxes to the emperor. That is why they were staying 15 days in their homes, 15 days in the basin. They were exempted from the military.

43 Havza-i Islah Layihası was mentioned the first time by Maadin-i Hümayun in 1867.
44 These boundaries were recorded first time on a marine map in 1910.
the present place of Zonguldak. Several laws were enacted to make the harbor for loading and shipping coal mines of Ereğli in Zonguldak. Ereğli Company Osmaniye, Societe d’Heraclee Osmanli A.Ş., built today’s historic pier, which has 300 m length with its 3000 tones/a day loading docks in 1896 (Zaman, 2004). With the declaration of Zonguldak as a town in 1899, the four-acre (3677 m²) field45 of Ereğli Company in the city center was used to be built a metric based railway and coal washing facility by French engineers (Figure 6.5). Hence, a new coal railway, 1 meter in width, and No. 2 coal washing facility was constructed respectively in 1902-1903, in addition to the briquette and coke factory in 1905 (Zaman, 2004). The no.2 scrubber opened in 190746 (Zaman, 2004). The road and railway to these facilities were located 100 steps behind the pier, 200 meters wide, between the Soğuksu and Zonguldak streams (Zaman, 2004). The power of Ereğli Company on harbor and railway made them a prominent actor on the site. Nearly all urban facilities located in the city center under the admission of the company. The total length of railway passenger transportation used for long-distance was 8.434km between 1856-192247. Also, completing the Kozlu-Zonguldak-Çatalağzı railway was discussed at that time.

45 The site was located in Bolu Livası, Hamidiye Kazası, İrmak Mevki, Zonguldak neighborhood, and Ereğli Company had bought the land previously from Dayıoğlu Mihaloğlu Konstantin.
46 No. 2 (1680 tons / day), briquette factory (300 tons / day), coke factory (120 tons / day) which accounted 80% (500 tons / year) of basin production.
47 Prof. Dr. Emre Dölen quotes in the book of Kağıthane Municipality: “Haliç’ten Karadeniz Kıyısına Bir Demiryolu: Karadeniz Sahra Hatti”.

130
At the beginning of the 1900s, Zonguldak center was formed through a pier and a bazaar. Port was a place where only coal mine import and export was made up of coal mining-government office building, government building, and control authority\textsuperscript{49}. The Ereğli Ottoman Company constructed the buildings to meet the needs of the docks, quarries, lightning officers, and operations of the company, and two or three families

\textsuperscript{48} It was ordered by Ereğli Company and made by French company retrieved from Personal Archive of Zaman (2019).

\textsuperscript{49} Kastamano Vilayet Salnamesi.
were resettled in the shack style households in Fener neighborhood (Çatma, 2016). The center of Zonguldak was a small village of several households, and since there were not enough houses to accommodate the company officers, supervisors, and business people with their families (Çatma, 2016).

The year 1877 proved that 1st Mining School was founded with the law is known as 7 Kanunisani 1289 by İbrahim Ethem Pasha, who was the first mining engineer who graduated from Paris mining school and it was closed in 1892 (Dölen & Sandalcı, 2004; Zaman, 2004). After coal industry was initiated and started to produce during the period of I. Abdülmecit in Zonguldak, Turkey (Çatma, 2014a), the way of citizens’ lives changed sharply, and coal has been the leading power in the shaping the urban form in each time of coal mining even in the Republican Period. There is a twofold relation. Space forms a way of life — society and production shape urban fabric. Harbor was put into operation (Duran as cited in Çatma, 2014a). The size of the harbor 7-8 ferry can hardly fit to make secure coal shipping (Duran as cited in Çatma, 2014a). Its construction caused an increase in the urban population.

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6.1.2 Republican Period

Figure 6.6. Zonguldak Republican Period prepared by author (2019).
6.1.2.1 Birth of Modern Urban Environment with Industrialization

Foundation of Worker’s Union was the first important step to stabilize and control the power of labor in 1922 (Barutçu & Uzar Özdemir, 2017). In 1923, the new government organized a considerable amount of incentives for agriculture and trade. On the other hand, the lack of manufacturing industry prevented to improve the sector in the beginning. Ereğli Coal Basin Workers’ Union Collaboration and Assistance Fund were established with the law no. 151 on 10 September 1921 (Canbaz, 2006). The aim is to provide economic and social assistance, social security to mine workers at high risk (Canbaz, 2006). With the republican era, coal was produced mostly to be used as an energy supply in various industrial factories like glass, brick, soap, metallurgical industry, lime quarries, and power plants as well as home-based uses. In 1924, a series of significant developments occurred in Zonguldak (Figure 6.6). The region became a city as well as the establishment of the first power station of the basin, Italian Turkish Coal Mining Inc. Thermal Power Plant (Ayoğlu, 2006). Following the investments, coal production reached 1 million in 1926.
Table 6.1. The Planning History of Zonguldak.

<table>
<thead>
<tr>
<th>#</th>
<th>YEAR</th>
<th>NAME</th>
<th>SCALE</th>
<th>DESIGN</th>
<th>CUSTOMER</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1924-1926</td>
<td>Zonguldak City Plan (42 plans in total)</td>
<td>10000</td>
<td>Tevfik Çakmakçı</td>
<td>Worker’s Bank</td>
</tr>
<tr>
<td>B</td>
<td>1953-54</td>
<td>City Master Plan</td>
<td>1000/2000</td>
<td>Asım Kömürçüoğlu</td>
<td></td>
</tr>
<tr>
<td>C1</td>
<td>1963 for plan 1964 for report</td>
<td>Zonguldak Region Pre-Plan</td>
<td>10000</td>
<td>Regional Planning Department of General Directorate of Planning and Reconstruction under Ministry of Reconstruction and Resettlement</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>1971-1975</td>
<td>ZMADP (Master Plan of Zonguldak Metropolitan Area &amp; Report of Strategic Plan &amp; Infrastructure System report)</td>
<td>5000; 1000 and 100000; 10000</td>
<td>Engin Erkin</td>
<td>Head of Union of Municipalities (UM) involving Zonguldak, Kilimli, Çatalağzi and Kozlu.</td>
</tr>
<tr>
<td>E</td>
<td>1980</td>
<td>ZBK Regional Development Project</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>2007</td>
<td>Zonguldak (Centre) Master Plan</td>
<td>5000; 2000; 1000</td>
<td>Modül Planlama</td>
<td>Zonguldak Municipality</td>
</tr>
<tr>
<td>G</td>
<td>2006-2007</td>
<td>Zonguldak, Bartın, Karabük Advanced Planning Area Environmental Plan</td>
<td>100000</td>
<td>UTTA Planlama &amp; Danışmanlık &amp; GEOTEK with JEOTEK</td>
<td>Ministry of Environment and Forestry &amp; General Directorate of EIA and Planning</td>
</tr>
<tr>
<td>H</td>
<td>2014 &amp; 2017</td>
<td>Zonguldak Environmental Plan</td>
<td>1/25.000</td>
<td>Ministry of Environment and Urbanisation</td>
<td>Zonguldak Municipality</td>
</tr>
</tbody>
</table>
Throughout history, Zonguldak city form has evolved with economic conditions, public facilities, and geography (Çörek, 2018). There are several cities and region plans designed and ordered by authorities (Table 6.1). The first known 42 plans ordered by Worker’s Bank, were designed by cartographer Tevfik Çakmakçı in 1926 (Figure 6.7). In that plan, the role of Üzülmez river plays a vital role in the formation
of settlements due to its transportation potential. However, its capacity would not succeed.

On the other hand, the Ottoman Period’s formation of the city center continued by adding first mining facilities like mining school, new furnaces. For instance, Zonguldak Higher Mining Engineer School (Zonguldak Higher Education and Industrial Engineer School) was founded as first mining college in Republican Period with the decisions of Ministry of Finance in 1924 until it was closed temporarily in 1931 due to the reason of economic depression\(^52\) (Dölen & Sandalcı, 2004; Zaman, 2004). In 1929, the new railway constructions improved transportation (Figure 6.8). The first lines date back to 1938 in Zonguldak; however, the relationship between coal and railway occurred in the EKİ period. In the following years, other sectors like Iron Industry started to launch. Incentives to Turkish firms had the main effect on these advancements. Also, the government tried to provide incentives for agricultural and

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\(^52\) The founder was Refik Fenmen, an electrical engineer (Açıkgöz and et al., 2005). The school was graduated its students as a high mining engineer who worked in the minefield. French and other foreign teachers were making courses to the students. For the closing reason, It was stated that the T.R. Government had taken a saving measure as the influence of ‘the 1929 World Economic Crisis’, and it would be enough mining to be extracted or much more unemployed would be (Zaman, 2004).
mining export to become the country as productive and economically sufficient. In the 1930s, several regulations were implemented as one of them was structuring permanent worker conditions instead of seasonal ones. Following this, in 1936, the first labor law was declared. In 1937, Karabük Iron and Steel Factory or Kardemir opened.

6.1.2.2 Prime of Industrialization

EKİ period was a turning point in the history of Zonguldak in terms of way of production, social life, and economy-policy in the 1940s. Although the literacy rate was higher than the national average, it was one-fourth of the national average in higher education (Ersoy & Şengül, 2001; Çatma, 2014b). Because families thought that their children's work was ready, which meant life equaled to mine, and that the child's capacity was not enough to read, they sent their children to mines after secondary education (Köse, 2006). In this respect, mine workers and their families present a transitive society in terms of being both peasant and urban (Köse, 2006). On the other hand, the psychological pressure experienced by the miners who lost contact with the world underground was reflected as fatigue and irritability when they returned home, and this has caused that their family tolerated them at home (Köse, 2006).

There are two milestone legislations of EKİ that set up a substructure of all development projects. The first one is No. 3867 number National Protection Law ordered expropriation for management of coal mines from 27 September 1940 to 1 September 1947. Also, Ereğli Coal Mine Field decided the paid job liability and abolished the weekend law in industrial establishments. The other legislation is the nationalization of minefields between 1939-1940 by the law of Cohesion, Füzyon (Barutçu & Uzar Özdemir, 2017). The reason was to make basin mining. In this way, the control and management would be more comfortable, and urban projects would be together. The outcomes of these decisions started to yield results from 1945 until 1957.
Notably, the Marshall Support to Arrangement Project of Zonguldak planned to enhance production policy in 1948, caused a turning point in the field. Within the scope of the project, the EKİ management realized various developments such as harbor, central scrubber. In that period, it became the most prominent factor that controlled nearly every part of life in the city. A series of facilities, infrastructure projects related to the coal industry initiated. It made its schools, cultural buildings like theatre, tennis club, and produced its bread. In this period, Zonguldak Fener Neighborhood presents one of the first modern neighborhoods of the Republic of Turkey established according to the principles of city planning and built environment extended in 1949 with the help of initial accommodation structures of French and English companies.

Ankara Cultural and Natural Heritage Protection Board registered the area as a third-degree urban and third-degree natural site with the law no. 4596 on 13 May 1996. The logic of this new settlement springs from the systematic and planned production approach throughout minefield. EKİ management took all control and established a comprehensive urban planning perspective to increase the production rate to gain more profits. An appointed commission by EKİ prepared initially a report that investigated existing facilities, coalpits, scrubbers, and transportation modes in Kozlu, Kilimli, Üzülmez. As a result of this research, the unification of transportation and washing facilities aimed to link coalbed units with the help of Marshall. Hence, construction projects of a new harbor as a serial coal loading port with the link of the extended coal railway line and a central scrubber, and extension of the historic pier were given to Royal Dutch firm to be realized in 1949 (Zaman, 2012). Also, the company was responsible for preparing the infrastructure of proposed transportation and central scrubber.

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53 It is recorded in the competition report of Zonguldak Municipality in 2010.
In 1953, EKI ordered architect Asım Kömürçüoğlu, founder of Turkish Society of Architects, to design city master plan in 1/1000 and 1/2000 scales (Zaman, 2012) (Table 6.1). In these plans, a new bridge was proposed as vehicular traffic in order to separate the railway from urban roads. After the harbor project, in the light of this master plan, extended linked railway lines to facilities, stock and loading units, the bridge for vehicles were built respectively by German Muhlen Industri A. G. (Miag) The company between 1948-1955. Railway lines were renewed and extended to the facilities. The firm constructed auxiliary units like stock and loading. Moreover, the Fevkani (İnönü) bridge of Kömürçüoğlu which separated the railway and vehicular road, was realized and built by a German company in 1953 (Figure 6.9).
In the same year, the central scrubber was designed with Çatalağzı case, which was washing of Karadon coal for 500 tones per hour by the English Simon-Carver Company. The construction, occupying approximately 141,000m² area, finished in 1956 and launched as to wash mining coal of Kozlu, Üzülmez, Kilimli in 750 tones per hour in 1957. It is located at the back of the city port area, lying on the east-west axis. The complex composes originally of the underground silo, coal grading, three coal washing units or decantation towers, a flotation unit, a waste transport system, coal stocking, and a loading system (Kılınç, 2009; TTK Archive, 2019) (Figure 6.10).

Towers and coal grading units are positioned on the western part while underground silos are positioned in the back of the city. It works as three units according to the knuckle jiks system. Each unit has a capacity of 250 tons per hour. In other words, it can process 750 tons of coal per hour.

This system is known as a tape unit or “bant sistemi” in Turkish, which goes along the coastline to Balkaya. The waste coal parts (şist, şilam, mist) were being spilled there.

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54 It is retrieved from personal archive of Ece Bakioğlu (2019).
55 It works as three units according to the knuckle jiks system. Each unit has a capacity of 250 tons per hour. In other words, it can process 750 tons of coal per hour.
56 This system is known as a tape unit or “bant sistemi” in Turkish, which goes along the coastline to Balkaya. The waste coal parts (şist, şilam, mist) were being spilled there.
silo is on the east. A small size area on the west is used as a private parking lot. As a result, not only mining coal also serving the urban environment suitable to the highest marketing standards is essential in the modern world. Therefore, thinking together with the harbor, coal railway transportation, and washing facility is inevitable (Figure 6.11). It makes a good case represent the importance of modernism in the transformation of a city socio-economically and socio-spatially since Zonguldak Central Coal Washery Facility and its surroundings took its place as being one of the industrial sites of Republic Period. As nature of these urban projects, incremental building dense was formed in time as seen in the master plan of Kömürcüoğlu, compared to the plan of Worker’s Bank.\(^{57}\)

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\(^{57}\) These 42 plans were prepared as 1/10.000 by Tevfik Çakmakçı in 1926 (Zaman, 2004).
The other successful enterprises of EKİ were Çatalağzı Thermal Power Plant which was opened in 1948 and converted hard coal into energy and Erdemir Factory which initiated in 1949. In time, this kind of facility led to rapid urbanization in the 1950s. Then, the project of connecting villages to coalpits with road networks was proposed and decided that the central villages of Eregli-Devrek-Bartin-Zonguldak would merge with the nearby coalpits and that the areas would meet the health, education, culture and other social needs of the village (Gürboğa, 2005). In the end, there were two control districts, Ereğli including Karadon, Kozlu, Üzülmez, Amasra regions, and Armutçuk Coals Enterprises for coalfield.

In 1960, with the help of Marshall, new sectors like auto, glass, food, house machines were introduced, and planning urbanization started (Çörek, 2018). In 1961, Ereğli Iron and Steel Factory opened. The saleable coal production of watershed reached its peak points two times in 1967 and 1974 with about 5 million tones while the workforce increased continuously to the highest rates between 1952-1959 and 1970-1977.

Foundation of Ministry of Reconstruction and Resettlement or Ministry of Development and Housing as a current name in 1958 and State Planning Organization in 1961 were prominent in the urbanization story of the country. These institutions aimed to train its personnel and provide a planning system for each city (Pre-Plan, 1964). Therefore, Zonguldak became a well-defined plot area to realize this notion. The team of ministry studied Regional Planning Plot Project as the first comprehensive planning (Gündoğan, 2005) or regional planning in Turkey58. At the end of the research, the regional planning department of the general directorate of planning and reconstruction under the ministry published the Preliminary Plan of Zonguldak Region with a research book and 1/10.000 scale proposed plan. The scope of the project is based on the 1st Five Year Development Plan (1964) and projected the next

58 The Pioneers were master architect Mithat Yenen, master engineer architect Yılmaz Gürer (Zonguldak Region Pre-Plan Report, 1964).
twenty years of region or 1960-1980. This study includes various sectoral, demographic, topographic, infrastructural, transportation analyses by using creative mappings, and proposals for sectors. Another attribution is envisioning the collaboration of central, local, and private firms or institutions in the process of urbanization from planning or theory to implementation or practice (Pre-Plan, 1964) (Figure 6.12). Consequently, this study is a milestone in the planning history of the country because the region-based scenario not only deals with urban problems but also incites the massive amount of investments, particularly in industrial cities.

Figure 6.12. Pre-Plan of Zonguldak Region⁵⁹.

In 1971, the Union of Municipalities involving Kozlu, Zonguldak, Kilimli, and Çatalağzı regions organized the first metropolitan public administration with the acknowledgments of Regional Planning Department. This committee was ordered

⁵⁹ It is prepared by Regional Planning Department Ministry of Development and Settlement retrieved from METU Library Archive.
Zonguldak Metropolitan Area Development Planning (ZMADP) to architect Engin Erkin in 1975. This study has a series of scales from 1/1000, 5000 to 1/10,000, 100,000, and projects city form and sectoral needs of the year 1995. Moreover, it includes a master plan of the area, report of strategic plan, and infrastructure system report. The profound details of this project owe its success to the outcome of the pre-plan. Thereby, both Pre-Plan (1964) and ZMADP (Erkin, 1975) complement each other (Figure 6.13).

Figure 6.13. 1971-75 ZMADP by Engin Erkin

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60 Sheet number: 0402, original source obtained from personal archive of Zaman (2019).
While pre-plan decisions enhanced the metropolitan character of the city, Engin Erkin realized this with sectoral and physical planning practices (Figure 6.9). According to findings and proposals, the sectorial and physical gradual division specifies the macro form with the compact settlement hierarchy, and minimum cost for the building, infrastructure, care, and repairment within an arch shape growth (Gündoğan, 2005; Erkin, 1975). In that plan, Zonguldak is the development center of west black sea region with the links to İstanbul, Ankara and Ereğli, Devrek, Bartın, Çaycuma subcenters for 20 years. The macro form can be observed as an arch shape starting and ending in the sea rising in the south, and both railways and main roads cut the city like a scissor (Erkin, 1975). Also, a compact city center with social and business and EKİ facilities are objected to the future university campus on the western side of the city known as the vast region. In that year, the intercity road systems continued to evolve.

In the Erkin's plan, the limitations are the slope of topography, active and potential coal settling or coal basin areas and climate. Also, according to this study, valleys are the best areas for settlement and network structure. The built environment is not proposed in more than 20% slope land due to unsuitable light gain and infrastructure. Even though Erkin (1975) states 20 percent as the settlement threshold, numerous buildings were constructed in 0-60% lands many years ago. Therefore, Erkin prepared a guideline for settlement in a high ratio slope area. In the estimation, nearly 30 thousand new settlement units, 1/3 of them belong to Zonguldak center, are planned from 1973 to 1995. In that period, the central hegemony of EKİ and TKİ resulted in the boom of production and workforce rates in the city. The planning policies of the coal management director’s office and municipality have formed the Zonguldak. The effect of this enduring autonomous power can show itself in the construction and

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61 It is tasman or tasmanlı alan in Turkish.
enterprise of the central scrubber. The detail explanation of technical and planning implementations is given within the value study of the site.

6.1.2.3 Fraction of Urban Form and Deindustrialization

In 1980, economy policy focused on the consumption industry. Foreign industry and trade started to commit. Light industrial production became a prominent sector with the modification and assemblage industry. As a result of the policy made in the production sector, Zonguldak entered into a turning point after 1980. The increased urban population had shrunk the city center and its surrounding. The political or systematic approach of ZMAP was discussed, and the necessity of structural planning (Gündoğan, 2005) brought Zonguldak-Bartin-Karabük Regional Development Project in 1980. A region-based approach designed integrated infrastructure, road, and sector planning through three cities, which can be seen in its revised version in Figure 5.1. Also, 24 January Decisions made new regulations for the field, and Zonguldak Mine-Labor Union (ZMİS) changed into a general center for whole mine workers (GMİS). The other articles caused a series of liberalization and a decrease in production rates, salaries, and several workforces in the basin as well as a central scrubber. Besides, for the management of the coal basin, TKİ transformed into Turkish Hard Coal Institution, TTK, in 1984. This management is the primary employer or even the principal employer, and it is responsible for nearly all economic activity in the city center and other locations such as Amasra, Armutçuk, Karadon, Kozlu, and Üzülmez (Şenay, 2009).
After 2005, the city has changed its appearance, incrementally, that the entrance is full of abandoned buildings within forced topography (Figure 6.14). According to Öztürk (2017), the chaos is overlooked in the middle of a vast land bombarded with three towers in the city, such as leaving the example of a large building, underground silos as the last remains of the Central Scrubber Facility in Zonguldak. He states that the site is the platform that shows confictions between the ones support the idea of capital of labor, and the others propose the profit-based approach for urbanization. In 2007, Zonguldak Master Plan was revised in 1/1000, 2000, 5000 scales by Modül Planlama, Ankara with the order of Zonguldak Municipality, but this study focused on a city scale. For the region-based approach, the collaboration of UTTA Planning-Consultancy, GEOTEK-JEOTEK with the order of Ministry of Environment and Forestry designed Zonguldak, Bartın, Karabük Advanced Planning Area Environmental Plan in 1/100.000 scale at the same years.

Figure 6.14. The comparative image of the site.\(^\text{62}\)

\(^{62}\) The prominent image of the site has become indistinct from the shoreline. The left image was obtained from Zaman (2019) and right image was taken by the author (2019).
6.2 Value Based History of The Zonguldak Central Scrubber Area

The importance of Zonguldak comes from being the first mining city of Turkey, and it presents a great picture of an industrial city transformation from industrialization to deindustrialization. This process can be read in different contexts, as mentioned before. In detail, the city shows the effects of mechanization after 1950 on socio-spatial and socio-economic identity. At this point, Zonguldak Central Coal Washery Facility plays an essential role as a reflection of this process in the city center. The story of scrubber had begun in the prime period of the industrialization process in Zonguldak when EKİ management has a modernist hegemony through the basin field. With the changing situation on the economy policy of the country, the site has been affected in different aspects. As Lefebvre’s space definition, user-space interaction that produces its values and relations has provided the formation of the site. At this moment, examining the site scale history within its values is worth to study. In this way, this study can serve a precise situation analysis.

From this perspective, the values are explained by using both data obtained from archival and site surveys. Archives of TTK, Municipality, and Zonguldak Chamber of Mining Engineers Branch are used as the primary source as well as the personal archives of Ece Bakioğlu and Ekrem Murat Zaman who both studies specifically on the city and have original copies of documents like statistics, photographs, reports, and plans. The comparative analysis occurs between archival information and expressions of interviewees. This analysis examines the eight value types, technical & technological, document, sociocultural, political, aesthetic, symbolic, identity, economic. Also, the third chapter explains the selection criteria.

1. Technical and Technological Value:

Getty (2002) proposes that technological development as having the latest innovations, better live conditions, technological structures, new products, and ways of production techniques, which are key codes to be investigated. For Turkey, the
latest innovation of the modern era started to form with the mechanization since 1950. The success of the highest machine technology is resulted in a certain quality and quantity in production at a particular time with reduced labor loyalty. That is why the relation of this value cannot be thought separately from the economy. The highest production or manpower rates are the outcome of technology.

The Central Scrubber was the latest innovation when it was constructed as a knuckle jiks washing system in the city center. The complex was technologically appropriate and valuable since scrubber, railway, and harbor were working as a whole (a02; c05, personal interviews, 2019). Since coal entry to shipping, each system was working in a relationship despite the construction of some parts later (Figure 6.15). It is expressed that scrubber was very detailed and built to meet all the problems from the coal inlet to the exit in the personal interview of b01. Until the latest destruction in 2011, the site has evolved with new sections to meet the needs by respectively drying unit (1960), heavy washing unit (1973) by Robert & Schaffers, TTK cargo section (1987) and filtration unit (1991) built and designed by TEK, constructed by Macar Trans-elektro firm (TTK Archive, 2019). The highest situation of the place is between these years, and it can be the technologic era (a02, 2019, personal interview).

On the other hand, due to a lack of technologic improvements, the facility has lost its economic and urban space value in time. Although a heavy washing unit was added to increase the capacity to 1000 tones per hour in 1973 by Robert & Schaffers firm, there is the elimination of units in time. For instance, shipping and handling were transferred to Kozlu and Kilimli due to a decrease in economic gain and the old version of used technology in 1971 (TTK Archive). The flotation became deactivated with the initiation of filtration in 1991, and its removal was in 2002.
Figure 6.15. Ideal presentation of the case site designed by author (2019).\textsuperscript{63}

\textsuperscript{63} This plan drawing presents ideal version of the site that means each constructed units are presented. The positions and areas are taken from the TTK Archive and the names of building parts are written as the output of comparative analysis of İTÜ (2004) and BEÜ (2003) Central Scrubber Reports.
2. Document Value:

“But each and every mine has a special form. Coal mines are different from potash and iron-ore mines. Lignite is extracted in different conditions from schist. In other respects, however, we can find common features, especially in the social and cultural certain uniformity which is also the expression of a “para-military” type of organization. The division of life into “shifts” is perceptible. The miners’ pride in their work, their sense of solidarity and their particular hardships are all evident in the local architecture differences between, the various mining regions is extremely difficult, but it is worthwhile and necessary. It is only on the basis of such details that we can make an assessment of the particular qualities of such industrial monuments.”

(Council of Europe, 1993, p.91)

Although things or events can be documented to future generations, the economic, social, policy, and technologic events try to help the selection of data for conservation and presentation. At this moment, specific to region or age construction techniques or machines, symbolic turning point statistical data, and significant policies that changed the faith of building or production rate made the information documentary value (Kılınç, 2009; Torre, 2002).
There is an incontestable technical detail quality that proves the site had a prominent role in social life and working environment in terms of its technical innovation and huge size within site (Figure 6.16). The highest volume within the city center is another document value in daily life. It is recorded that it was already there, so it was not a big deal (c01, personal interview, 2019). Not only the volume but also the steel construction with brickwork material quality of the main building became the remnants in the memories of users, which is mentioned in the interviews of b01, c02, c04. As well as the distinct building material character, the coal railway extension of the facility has reached the streets of the city and become a crucial part of life (Zonguldak Municipality, 2010). The planning scenario of the city center has evolved

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64 K and J Sections of Central Scrubber, Decantation Towers 1/200 Scale. The other details of the site are added in appendices. These drawings guided the plan drawing on Figure 5.12.
with the relation between scrubber, harbor, and railway by starting from drawings of Çakmakçı (1926) as described in the contextual background. These comprehensive and system planning of coal facilities also document the golden age of the city and scrubber as well as the downfall\textsuperscript{65}. These data made the site valuable to document.

As a result, the scrubber has its unique characteristics that affect social life and the way of study of workers in the facility. For instance, people were working in services as groups-positions or shifts, and the names of places were with their tag’s units\textsuperscript{66} (Figure 6.17). The site was active for 24 hours every day. It is recorded that working hours were organized by three shifts which were respectively (b01, 2019, personal interview);

- 7.30 am-3.30 pm for usual work,
- 3.30 pm-8.00 pm for maintenance and,
- 8.00 pm-6.00 am for night work.

The high qualified and cultural personnel was working at the site. Also, the reports special to central scrubber made by the Mining Engineering Department of İstanbul Technical University (2004) and Bülent Ecevit University (2003) are another document value for the site.

\textsuperscript{65} It was recorded more than once in various keywords with a similar context in personal interviews of b03, c01, c02, c03, c04 (2019).

\textsuperscript{66} It is in the interviews of b01, b02.
After the facility washed the last coal coming from Kozlu on 20 May 2006 (b01, 2019, personal interview), all works of the site were terminated and transferred to new mobile coal washing units, which were a new technology in Üzülmez and Kozlu. In the following months, the destruction started (13 November 2006); however, 23,000 m² area of the facility was registered with the organization of institutions on 8 December 2006. The coal grading unit, three decantation towers, underground silo were recorded as immovable cultural values with the request of TMMOB Chamber of Architects by Karabük Regional Council for the Protection of Cultural and Natural Heritage (Zonguldak Municipality Archive, 2019).

*Figure 6.17. Proposed management for facility (Didari & Kızgut, 2004).*
After this documentation (Figure 6.18), the conservation issue has emerged within the architectural field based on that each industrial heritage has its preferences and sensitivity both compared to other heritage and industrial assets.
3. Sociocultural value:

Distinct social position, cultural background, and changing factor on life specify the sociocultural value (Kılınç, 2009). The physical environment and specific events and organizations reflect sociocultural value. This type of value should be considered both within the city and scrubber scale. The city coal character has affected the number of engineer and other sectors as well as the number of employees which was about 40.000, that equals 10 % of the population between 1960-1975\(^68\). That is a distinct situation comparing to other cities.

As the outcome value of the social character of the city, community spirit can be discussed. According to McMillan & Chavis (1986), it is composed of membership, influence, reinforcement, and shared emotional connection. Membership or commitment to society or place makes sense of belonging. In that community, there is a twofold relation that one influences the whole and the whole influence one. This commitment brings up the motivation for members. In this way, each person is getting in emotional connection. For instance, the coal company was an essential facilitator of community spirit as an administrative organization in Ruhr Essen. For the Zonguldak case, the one type of sector hegemony leads the similarities among the income levels, and it accelerates the solidarity among workers, engineers (Ersoy & Şengül, 2001). Therefore, the facilitator of community spirit can be thought of as Mine-labor Union and TMMOB Chamber of Mining Engineers. For instance, the 1991 strike was a necessary proof of community spirit,\(^69\) in which the leaders of the strike were working at the site. Also, the club culture of community house and commitment to the management of EKİ are other factors of this spirit.

\(^{68}\) According to TIK (Turkish Statistics Institution), the population was respectively about 570.000, 650.000, and 745.000 in 1960, 1965, and 1975 in Zonguldak. Manpower data can be taken from the official website of TTK.

\(^{69}\) It is in the personal interviews of b03, b02, c01, c03, c04.
Even though community spirit has worn thin in recent years since it means the social structure is formed apart from production and labor in Zonguldak (Çörek, 2018), the organized, professional, and student competitions can be recorded as the success of this spirit between the years of 2008-2010. Firstly, City Dreams 3 students’ competition was organized for the site by TMMOB Chamber of Architects Ankara Branch. Also, the workshop was organized to produce a common ground for the future of the site by ZOKEV on 16 March 2009. The legal and property procedures, architectural, and planning principles were discussed in this meeting. As the continuation of this study, the site was opened to a professional competition which its name was *Zonguldak Coal Washery Conservation Area and Environment Protection, Planning, Urban Design, and Landscape Arrangement Project* with the cooperation of Zonguldak Municipality and Chamber of Architects. However, due to disagreement about property rights, the winner project could not have been implemented. The form has shrunk the management of the coalfield with its incremental population and settlement area. The city, which is determined by coal studies, has started to evolve and define the limits of coal works in the field. Today, Zonguldak is on the edge of transformation to a typical urban dwelling from the coal city. Local authorities conceive the public spaces as the success of urban generation or transformation since public areas can include into the global market and get advantages by the production of symbolic meaning and identity to the city (Akkar Ercan, 2016c). Lastly, the scale of the 2007 environmental project increased to 1/25.000 by focusing only on the Zonguldak Environmental Plan prepared by the Ministry of Environment and Urbanization with the order of Zonguldak Municipality between 2014-2017.

To sum up, there is a necessity to think of collective memory with values. Nora (1996) and Halbwachs (1992) state that space and time-limited community form the 19th century’s collective or modern memory. This memory consists of a way of behaviors and awareness of experiences. Monumental materiality or heritage space encompasses collective memory. The city is a predominant image or monumental material as the
locus of collective memory (Rossi, 1984). Like community spirit, the daily life memories are the other reflections of the value of scrubber. Due to be a sophisticated facility, it has places in which people can interact and meet their basic needs like a dining hall. Unfortunately, it is recorded that social amenities decreased and was a lack in the 2000s for the scrubber.

4. Political value:

“After the coal washing plant has completed its economic life, TTK has decided to demolish this structure and put it into practice. When making this decision, the aim was to leave this area within the city to the use of the city. But whether it should be left to the city in this way or left as an industrial heritage without being destroyed, this is always discussed in the city as a question mark.”

(a02, personal interview, 2019)

The policy forms directly the urban in each aspect in Zonguldak. When the manpower or production decreases, the reason originally brings from political issues. Civic/social life decisions; governmental behaviors; civic activities or reactions are examined. The ZMA and ZMAP (1971-1975) affected the profit increase of the site indirectly. The active railway and harbor relations proposed in these plans made the scrubber dominant in the production life. The city center had a political value in that period as well as the hegemony of EKİ since there was an autonomous state like the position of management which used to lead the facilities and make decisions for constructions (Ersoy & Şengül, 2001). The sub-coal was forming the up-city character by

70 The original text is “Lavuarn artık ekonomik ömrünü doldurması sonrası TTK bu yapınsı yıkılmasına karar vererek uygulamaya koymuştu. Bu kararı verirken amaç şehrin içindeki bu alanın şehrin kullanımına bırakılması idi. Ancak bu şekilde mi şehre bırakılması yoksa yıkılmadan bir endüstri mirası olarak mı bırakılmaktı bu hep soru işaretleri olarak kentte tartışıyordı.”.
considering the coal settling area until the urban formation became a prominent factor for the authorities. The main argument is here was removing heavy industries like scrubber from the city center and produce an urbanized environment like other city developments. The opposite discussions that this city was formed by the discovery of coal, so first coal was here, the city started to be evolved by coal, state that urbanization is not suitable for this city\textsuperscript{71}. For the last period of the facility, the documentation of production and manpower rates, situation of services and buildings, and working conditions present how the central scrubber symbolizes the downfall of basin policy in a practical way. That is why existing data reveal that the technologic value has resolved after 1980.

\textsuperscript{71} It is in the interviews of c01, c02, c05.
5. Aesthetic Value:

As described in the third chapter, style, beauty, and art are directly related to aesthetic concerns. Also, the formation of the physical appearance of space, mass, or volume in time constitutes the value. The qualities of environment like color, light, smell, sound, tactility, kinesthesia, pattern, order, information, and meaning make the place aesthetically valuable. This situation can be observed by the implementation of new technology and a clear view (Avrami et al., 2000). This vision is investigated both in the interviews and archival documents.

Figure 6.19. The loss of relation of building parts.

The aesthetic value of the central scrubber is scrutinized in the dissertation of Çörek (2018) by linking the identical appearance of collective and individual memories (Figure 6.19). From this perspective, the city coal railways and the remnants of the facility can be called the extension of the aesthetic environment. According to Rossi (1984), collective memory produces the predominant image of the city, and it visualizes with particular urban components. From the interviews, it can be understood that the aesthetic vision should be regarded in two sections. First is the active period of the site in which the production has occurred. Second is the destruction and its consequences (Figure 6.20). For the first time, it can be said that

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72 The loss can be seen in time with the undefined use of area. The left and middle image was obtained from Zaman (2019) and right image was taken by the author (2019).
people were facing the different effects of scrubber in their life. The main three qualities are expressed in the interview of one of the site workers (b02) as;

“1. Dust, smoke, mud,

2. The closed road due to trains passing along the day,

3. Frequent explosions. For example, in the middle of the night, there would be a thud. We would say what happened. They said there was an explosion. Probably, there are various boilers, coal washing and drying and some negativities that occur during various applications are high. We used to make fun of it because the scrubber exploded. These are the deepest things in my childhood.”.
After the destruction, the three decantation towers and miner’s monuments evoke the image of the city with the activities they remember. Also, the other selection reason for these places, as for the image of the city, is the aesthetic appearance. On the other hand, participants connote that the present appearance of the central scrubber is bulky and ragged due to the destruction and unclear use of land. In one of the interviews, it is recorded that “tents come under the name of the fair, which is unclear (Figure 6.20). It is not clear who went in the evening and with drunkards in the dark (b03, 2019, personal interview). Also, understanding an old version of the site and meaning of decantation towers became hard\textsuperscript{73}. However, the durable building materials and durability of the towers turned the discussions to reuse them by cultural facilities. Besides, there is a fear of seeing a high dense urban fabric in the place of the site for the future, and it is stated that it should not have closed with the argument of blocking the city development from the perspective of participant researchers\textsuperscript{74}. The concerns continue that transformation should be regarding public use and sociocultural activities.

\textsuperscript{73} It is explicitly expressed in the interviews of a02, c01, c04.

\textsuperscript{74} It is more than once in the interviews of c03 and c05.
6. Symbolic Value:

The representation of a notion, individual, event, period or party, and interpretation of ideology of one period or situation forms the symbolic value (Kılınc, 2009). The remnants become the expression of the symbols of memories and ideas. In another way, in the process of comprehension of the urban form and history, symbols of city elements help to reveal the spiritual meanings of the community (McMillan & Chavis, 1986). Also, with the evolution of the community, the meaning of physical environment reforms. Therefore, the vision of the city center has formed in two periods. Before the destruction of the facility, the site was working with the harbor and railway along with the city. It was creating a vision that coal mining is the main power for the development and necessity of life. Notably, the railway was a prominent factor that shaped the city life, but today this is expressed by the memories such as in personal interview of c03 (2019);

“In the usual course of life, the train comes and waits. In fact, climbing among the train wagons was one of the greatest pleasures of our childhood. Passing there, jumping, jumping... we even counted it as a matter of pride. What I expected to have jumped there, I went there. Now we live in the age of the city in the middle of any speed, not just the train, so it is not acceptable to have an intervention to stop the flow of traffic is not acceptable, for example. However, it is quite natural. One was looking from the outside might have said you are cutting the road as a bandit. However, this was usual in the city. Outside of this city, people are tired of things. Big coal piles dust soil smoke or something; each of us is a part of the geography we live in. Even though the activities there are interpreted differently from the outside, it is usual for the people there.".
Both the train and scrubber were symbolizing the urban culture (c04, 2019, personal interview) and was a mining school (b02, 2019, personal interview) so no one used to complain about its bulkiness or other vision since it used to symbolize a productive city and the place of work for everyone. It is coded in the interviews as various forms like a symbol of mining notion, national wealth, coal, workplace. On the other hand, the closeness and destruction turned the notions to another side. Although the towers became the left symbols for ones know past (a02; c01, 2019, personal interview), it is worth to be seen as a nostalgia even though its bulkiness and tremendous land occupation (b02, 2019, personal interview). To sum up, the expressions of memories evoke the symbolic meaning with a valuable aspect that should be considered within the city and site scale.

7. Identity Value:

In this type of value, meanings of physical space, space-user interaction, distinguishing situation or thing, similar instances, and social-cultural-physical environment are investigated. Even though there is no standard definition today for city Zonguldak, there is a city of production and labor (Çörek, 2018). The physical settings, activities explain the meanings of the distinct character of the city. The difference of central scrubber comes from its uniqueness regarding having a railway connection in the near environment, and being in the city center, despite the complaints about occupying large areas in the city center and blocking the development of the center. This different situation can be observed in the planning process of the city. The city has been formed through industrial facilities and coal. The extracted coal has started to form the built environment as meeting its needs. In another way, the city was formed by the discovery of coal, so the first coal was here, the city started to be evolved by coal75.

75 It is quoted from the interviews of a02, b01, b03, c01, c02, c05.
“It was an army. Because only 1000 people work here and get them here. Then there are 100-150 people working in the harbor with their combs, tugboats, and locomotives, and taking their ambulances to homes, transporting workers. It was a crowded place. Because these are big numbers.”

(c02, 2019, personal interview)

The other expression of the effect and distinct character of the central scrubber can be understood from the quotation of a02 in the personal interview (2019):

“It was possible to hear the voices coming from the scrubber area (the sound of the train or other running machines), and no one complained about it while walking around Gazipaşa Street. It was a building with a huge big mass. However, I never witnessed the inhabitants of the city, expressing their discomfort from this structure. It was an important industrial structure under the conditions of that day.”.

When the city has evolved and began to shrink, the new policies in planning and development scenarios led to rapid deindustrialization in the city center. One of the closing reasons was that it was closed to open a large-scale area of the city center to the public like a recreation place. While the city was receiving migration till 1980, it turned into a “smokeless chimney” with the deindustrialization due to the dependency on one type of sector (Ersoy & Şengül, 2001; a01, 2019, personal interview). The number of employees decreased from 40,000 to 7,000 in 2018. The retired people from the institution have been increasing, and the coal identity of the city has started to turn into other versions that can be ascribed in the expressions of people.
There is a dominant notion among people that city transformed from the capital of production to the city of retirees\textsuperscript{76}. On the other hand, the tourism-based projects like the road go to the coal and natural cave: the municipality proposes Gökgör as the new touristic city identity. While this perspective is not mentioned in other interviews, transforming the old industrial facilities to the culture route or industrial culture tourism areas like anchor places are proposed, especially by researchers. That is why another identity of the city is expressed as the culture place for industrial history. As the last proposed identity, the foundation of the university brought the new young users to the city, so there are both retired, and students live and socialize in the city center. The extension of the university is welcoming in the center as a new vision to Zonguldak despite opposite thoughts.

8. Economic value:

“This is a place where the coal produced in the whole basin turns to money. In other words, the central scrubber is the point at which the coal extracted by a mine worker has reached the value of the coal since it does not make any money as it emerges from the quarry.”

\textit{(b01, 2019, personal interview)}

Zonguldak, as a city, is still based on labor and production today, although it was a locomotive of the Turkish economy in the modernist hegemony era of the Turkish Republic. It was financially profitable for the parties, owner and administrator, and sustaining new profits to the public. The marketing of coal and the use of building for making profit make Zonguldak city as economically valuable in the industrialization story of Turkey. According to statistical data, 1970-1980 is the time interval as a

\textsuperscript{76} It is particularly emphasized in the interviews of a01, b02, b03, and c03.
definite profit increase within the field (Table 6.2). The highest manpower rates have seen in the EKİ period. The sociocultural reflections and the city identity expressions of this time led this period both economically and socio-culturally value. In another way, the period, the 1970s can be recorded as the golden age for both basin field and central scrubber.77

Table 6.2. The golden age statistics of the city, production and manpower78.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SALEABLE COAL PRODUCTION (TONES)</th>
<th>MANPOWER (PERSON)</th>
<th>CITY POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1970</td>
<td>4,572,966</td>
<td>34,671</td>
<td>682,026</td>
</tr>
<tr>
<td>1971</td>
<td>4,638,721</td>
<td>35,650</td>
<td>694,805</td>
</tr>
<tr>
<td>1972</td>
<td>4,641,461</td>
<td>36,154</td>
<td>707,585</td>
</tr>
<tr>
<td>1973</td>
<td>4,642,394</td>
<td>37,591</td>
<td>720,365</td>
</tr>
<tr>
<td>1974</td>
<td>4,965,469</td>
<td>39,399</td>
<td>733,144</td>
</tr>
<tr>
<td>1975</td>
<td>4,312,934</td>
<td>40,002</td>
<td>745,924</td>
</tr>
<tr>
<td>1976</td>
<td>4,631,854</td>
<td>41,774</td>
<td>682,026</td>
</tr>
<tr>
<td>1977</td>
<td>4,405,396</td>
<td>42,784</td>
<td>694,805</td>
</tr>
<tr>
<td>1978</td>
<td>4,295,237</td>
<td>42,072</td>
<td>707,585</td>
</tr>
<tr>
<td>1979</td>
<td>4,051,331</td>
<td>41,923</td>
<td>720,365</td>
</tr>
<tr>
<td>1980</td>
<td>3,597,628</td>
<td>41,927</td>
<td>733,144</td>
</tr>
</tbody>
</table>

The economy policies and the political situation of the country made new regulations like Law No. 2821 & 2822 for the field in 1982 (Ersoy & Şengül, 2001). This policy led to a liberal hegemony through the city, and the autonomous power of management had decreased with the production rates. The city started to be transformed into a deindustrialized urban core. As a result of this period, the central scrubber has terminated its economic life and value (a02, 2019, personal interview). This dramatic increase can be observed both in statistics and interviews. According to b01 (2019,

77 It is stated as well as in the interviews of a02, b03, c03, c05.
78Manpower and production rates were taken from official website of TTK; population from official website of TÜİK.
personal interview), while the number of central scrubbers’ site workers was 750 in 1991, it became 250 in total in 2003.

“It was active because, as I said, 12,000 tons of coal was washed a day in the 1980s. Most of this coal was going to iron and steel factories, private sector, and tea factories. It was in later years. In the closure time of the washing facility, coal was going to the thermal power plant, but as a low-quality power plant fuel.”

(b03, 2019, personal interview)

This downfall period, the 1980s had continued. It is stated that we were washing about 8 to 9 thousand tones of coal per day, but it would decrease under 6 thousand after 1991 (b01, 2019, personal interview). Also, this dramatic decrease can be proved by municipality records (2010) that 4389 tones of coal were entering the facility per day in 2003. The diminishes in manpower and production stems from political authority. On the other hand, Getty (2002) also assesses technological value with the number of employees and production increases, but this cannot valid after 1980 (Table 6.3).

Table 6.3. The last period statistics of the city, production and manpower.99

<table>
<thead>
<tr>
<th>YEAR</th>
<th>SALEABLE COAL PRODUCTION (TONES)</th>
<th>MANPOWER (PERSON)</th>
<th>CITY POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2,256.768</td>
<td>19.151</td>
<td>1,039,856</td>
</tr>
<tr>
<td>2001</td>
<td>2,356.865</td>
<td>18.025</td>
<td>1,052,635</td>
</tr>
<tr>
<td>2002</td>
<td>2,244.385</td>
<td>15.761</td>
<td>1,065,415</td>
</tr>
<tr>
<td>2003</td>
<td>2,011.178</td>
<td>14.062</td>
<td>1,078,195</td>
</tr>
<tr>
<td>2004</td>
<td>1,879.411</td>
<td>12.261</td>
<td>1,090,974</td>
</tr>
<tr>
<td>2005</td>
<td>1,665.324</td>
<td>11.249</td>
<td>1,103,754</td>
</tr>
<tr>
<td>2006</td>
<td><strong>1,522.411</strong></td>
<td><strong>10.611</strong></td>
<td><strong>1,116,534</strong></td>
</tr>
</tbody>
</table>

99 Manpower and production rates were taken from official website of TTK; population from official website of TÜİK.
6.3 Mapping Analysis of Site Survey

6.3.1 Rhizome Mapping

Coalpits as burrowing and the route of the railway as extending element provide the rhizomatic activity of central scrubber site with the surrounding. The situation is expressed in the mapping literature. The complex relation of the places emerges the multiple sources needed to merge and match like production and workforce rates with the symbolic routes and environments. In this rhizome mapping, the difference stems from the route of coal. While the plant grows from a root and expands to its area, there is a reverse situation in the case (Figure 6.21).

![Diagrammatic idea of rhizome mapping designed by author (2019).](Figure 6.21)
The central scrubber has collected the coals from Kozlu and Üzülmez coalbeds. In this mapping, the journey starts with the branches and ends in the anchor point, the case site (Figure 6.21). The in-betweenness expresses the evolution of relationships in time. There are two main routes which are showing manpower and saleable production. The white palace that is a nickname of TTK building due to showing its strong hegemony on the field and the color of building material is selected as the starting point of the manpower statistics. TTK is still the general director to assign the workers and has the decision power on the sites of coal. That is why the presentation of the workforce symbolizes this control.

On the other hand, the salable coal comes from Kozlu and Üzülmez to the site to be washed through the coal railway transportation. The two ends of these routes, the

Figure 6.22. The miner’s monument taken by the author (2019).
harbor, and scrubber, show the effect of destruction at the end of the 20th century. In the journey, there are some essential places like Fevkani Bridge and Miner’s Monument. While the bridge is essential for the planning story of the 1970s, the Miner’s monument is still seen as the symbolic value for the community (Figure 6.22). All outdoor meetings take place in front of this monument since it emphasizes the coal and miners for everything that makes it very important for the city memory (a02., 2019, personal interview). The timeline starts with the golden age recorded as the 1970s in the interviews and ends in the latest destruction for the workforce and the closeness of the facility for coal production (Figure 6.23). The mutual experiences of the sample group of interviews also make this process sensible (Figure 6.24).

Figure 6.23. The current Fevkani Bridge, taken by the author (2019)

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81 There are various shops in the current use of bridge.
Figure 6.24. Rhizome mapping made by author (2019).
Figure 6.25. Restitution of Central Scrubber made by author (2019).
6.3.2 Layering Mapping

The metalanguage explains the history of construction or destruction in the site. The unseen environment of this aggregated process is revealed by this restitution study, which is used most in the documentation of built heritage environments. The apparent difference of this study from the previous mapping made in the competition projects of municipality and Chamber of Architects’ Office is the presentation of how the boundaries of scrubber have evolved, and the destruction made progressively (Figure 6.25). The legend explains the situation of buildings that were constructed, deactivated, and demolished in that year. Examining this map with the historical background of the industrialization and deindustrialization process helps to understand the effect of policies on the site. For instance, adding new units stops after 1980, and the main destruction follows.

The archival information of this mapping is formed by the digital drawing file of TTK and Municipality by comparing the registration and city council reports. Also, the recorded diagram explanation of coal processing through the buildings in the reports of İTU (2004) and BEU (2003) guides the drawings. For the initial versions of the site, the plan drawings of Simon-Carver Firm obtained from the municipality and the previous city master plans are taken as reference.
6.3.3 Conceptual Mapping

PERCEIVED VALUE ANALYSIS OF INTERVIEWS

In the interpretation of the first concept map (Figure 6.26), while there is not a clear distinction from the previous mapping, the researchers answer the questions in much from the economic and politic perspective. That is why their results reveal this type of value. Also, the documentation and technical values are mentioned much by their

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82 Interview question-answer matching diagram is in respect to site actors (city which is upper; surrounding environment which is middle; site which is bottom questions).
expressions; even the questions do not ask them, vice versa, they mean other aspects. On the other hand, three questions asked the city identity, thoughts about the physical structure, and aesthetic value of the site, which aim to reveal the aesthetic notion. However, the expressions do not show aesthetic terms. Instead of it, the other values, like identity and symbolic meanings, started to be mentioned by interviewees. This situation means that there is a need for a new way of asking thought about the physical environment.
Coal character is associated with the success of the city, which stems from technological innovations and facilities (Figure 6.27). According to findings, this city has formed with the discovery of coal, so the first coal was here, the city started to be evolved by coal. Nevertheless, it is not suitable for urbanization. The migration receiving situation enhances the labor character throughout the city and the reasoning that everyone has a kind of story with coal whoever. According to interviews, university location being close to the city center, and the need for socio-cultural activities of university cause the formation of the university character. In the economy-
based approaches, the city is interpreted as an alternative to coal with its forestry, harbor, or coastal and natural or industrial touristic city.

To conclude, city coal character seemed like national wealth, economic miracle, and mining school together with the identity of labor and production city in the past. However, today with the deindustrialization attempts, it turned into a smokeless chimney, city of retirees, university, coastal, forestry. On the other hand, there is a common ground that the city is evolved by mining character, and there is sub-coal, up-city.
In the analysis of the perception of social facilities, the past is explained mutually with the total values (Figure 6.28). Also, the notions vary through the content. For instance, Bahçeşehir, Yayla, and Fener neighborhoods were the urbanized areas with their social facilities. The first tennis court was in Fener and built by French, and other social activities were served in the highest standards like open-air cinema, theatre, and one of the first three pianos as described by b02, b03, c04. In the EKİ period, Fener was highly qualified with socio-cultural activities like a campus, so it symbolizes being prestige. Also, the physical structure of the Municipality Culture Center, governors building, İnönü sculpture, and miner’s monument are recorded as one of
the symbolic and identity values of the city in the past. Nevertheless, when the management hegemony decreases, commitment to management and spirit are disappearing in the present with the facilities like lodgments, club culture.

**Central Scrubber:**

![Perceived Value of Central Scrubber](image)

*Figure 6.29. Analysis map of central scrubber question answers (2019).*

Although it seems that the variety of values is much in the past, the closure factor affects the results on the present since the economic and socio-cultural sustainability cannot be thought for the site in that period (Figure 6.29). The mentioned frequency statistics explain that there is more than twice the difference between the past and
present. The past is defined much due to the lack of experience in the present. On the other hand, the memories are full of values in the site decisions and workers, but the notion of researchers rises in the present as its nature. This situation proves that researchers have interest in problematic heritage sites comparing to active periods of the site.

### 6.3.4 Perceived Value Mapping

The result of the qualitative analysis interview is presented with a value mapping for both the past and present. The difference from the conceptual mapping is the visualizing the qualitative information of values on spatial data. For the 1970s defined as the golden age, the scrubber is seemed with technical and technological values by the terms; holistic operation system, place of coal turns to money, and economic miracle (Figure 6.30). The Gazi Pasha street complements the social needs and any community activity of the sample group in that period. That is why community spirit and club culture reveal the memories. While the scrubber plays a vital role as the production place in the memories, the Gazi Pasha street symbolizes the socio-cultural values. For the second map, the present situation analysis states that there is a loss of values, particularly for the relation of the central scrubber with its environment. The sample group has hardly mentioned about the surrounding environment when it is asked the present conditions and ideas (Figure 6.31). The participants prefer to talk the only scrubber, and they do not link their social life habits to the site. So, the site has no connection with the past values and today’s facilities on the Gazi Pasha Street.
City of Coal
Capital of Labor
the complex & comprehensive facility

Golden Age: 1970s

Figure 6.30. Golden age value analysis map (2019).
Figure 6.31. Downfall value analysis map (2019).
6.4 Importance of The Study

The importance of this dissertation is to reveal the values of a heritage site through different actors by focusing on critical periods. The originality of the study owes to the effort, which is a discussion of social context as one of the first stages of conservation issue. The survey study examines different aspects of disciplines or positions of people so that transferring this heritage to the next generations and regenerating becomes a vital issue in conservation. In this way, the values of the site with its surroundings would be recalled and revealed to different parts of society.

The value relations are examined within the space-based definitions. In this way, the experience of the users reflects through the perception of value. This effort causes the intricate relation between value terms that is a specific quality of a place or memory that can be associated with more than one value type. That means the value typology should be thought in a multi-dimensional scope.

The other importance of the study is the scale and time-based analysis strategy within a contextual frame. In this way, organic relations among world, country, city, and site reveal through the parallel contextual timelines. This strategy is implemented both in the literature review and the analysis of the case. As a result of this study, it would be seen that the demolishment of the site makes the research focus on two time periods: 1970-2011 and 2011-2019.

This thesis states that the industrial heritage cannot be thought independent of the modern history of the world since the production spaces of industrialization have transformed with the end of modernization and the evolution of the economy into deindustrialization. For this reason, the different aspects of modernization are examined in detailly through the case study. As of last, they are presenting the profound definitions of conservation and relevant organizations with their relations is one of the other qualities of this study.
CHAPTER 7

THE CONCLUSION

7.1 Summary

This dissertation examines the industrialization-deindustrialization history and its traces on social life and built environment by focusing both Turkey and Zonguldak Central Coal Washery Facility. It evolves around the literature review, approaches for conservation studies, and mapping techniques for analysis. The literature enlightens 20th-century modern world history within the socio-economic and planning context by comparing Turkey. In this part, the proposed timeline aims to compare modern history with the process of industrialization both in Turkey and the world. The history is divided into three sections; birth, prime, and a fraction of modernization. While the prime symbolizes the hegemony of the authority and modern movement, the fraction refers to the multidimensional economy policy, built environment, and fall of industrialization. Also, this section reveals how the industrial heritage conservation idea and the institutional attempts have formed through the years. This chapter is concluded by scrutinizing Zeche Zollverein Complex, Ruhr Essen, Germany, to exemplify this history within a practical site. The outcome helps to understand the background of industrial ideas and the reasons for conservation. In the third chapter, conservation approaches express the main ideas for heritage issues. Also, it focuses on the value-based approach by linking the triad space definitions of Harvey (2008), Lefebvre (1991), and Cassirer (1953). In this part, there is an emphasis on a variety of space definitions regarding the experiences of users. That is why the values of

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83 The original sources are respectively in 2006, 1974 and 1923.
heritage sites are formed different by these definitions. The perceived value emerges from this triad space explanation.

On the other hand, Riegl (1903) investigates the variation of values within the time. It is stated that the built environment cannot be frozen at a specific time when the site is exposed to the changes, both the qualities and values depending on the site transform. Therefore, the values are dynamic elements of heritage areas, so multi-dimensional relation between value terms that is a specific quality of a place or memory can be associated with more than one value type. In light of these, the related eight values are scrutinized in the case chapter. The fourth chapter focuses on the literature background of the mapping analysis technique of the survey. Under the creative mapping, the rhizome, layering, and concept styles are explained with their limits and potentials. In the methodology chapter, the proposed value approach and site survey analysis are defined before the case section. The approach expresses the boundary of studied values in terms of timeline, typology, and set while the mapping technique explains the analysis stage. The analysis of the case consists of both comparative research of archival data and interviews and mixed-method thematic research.

In the sixth chapter, Zonguldak and Central Scrubber are examined detailly under the three main sections. The first part begins with the brief contextual history of Zonguldak and Turkey by presenting a timeline that includes the Ottoman Period of coal discovery and Turkish 20th-century modernization and economy-policy history with parallel to the Turkish Republican period of Zonguldak city planning and central scrubber history. The coal discovery led the discussions of transportation in the Ottoman Period, and it turns into the initial formation of the urban fabric. For the Republican Era, the city goes under the modernization perspective, and the built environment started to form with the highest level of modern policy. This part consists of three phases; the birth of the modern urban environment with industrialization, prime of industrialization, and a fraction of urban form and deindustrialization.
Following this background information, the value based history of central scrubber gives comparative historical information about the city and site by using the interviews and archival data. This part also clarifies the golden and downfall periods of coal production. It is presented that a holistic approach to values can enhance the determination of the period. *Although the critical events of the golden era were initiated in the country scale in the 1960s, the mutual wealthy time of social life, planning and development policy and production rates meet on a common ground that 1970s is the golden era for the city. The multiple expression of values also complements this theory.*

In the analysis part of the case, two leading data, archival and interview, are used to present in four types of mapping. Firstly, the archival information or existing data is visualized by rhizome for the city scale and layering for the site scale. The rhizome documents the spatial information of the coal railway route and TTK hegemony through the years. The layering or restitution map shows the building history of the site. From this analysis, it can be said that there is a precise destruction period for the site since 2006. Secondly, the interview information provides revealing of perceived values of the site in specific to sample groups, decision-makers, site workers, researchers. Two maps scrutinize perception. The first one is a conceptual mapping that visualizes and reveals the qualitative research of values in a mixed method. The second one is the value map that presents the contextual results of interview analysis on spatial information. To conclude, this study examines not only the socio-spatial history of an industrial heritage starting from the foundation to the demolishment within a modernism perspective but also the effect of this history on the perceptions of people who have organic relation with the case by presenting the creative mapping techniques.
7.2 Findings of The Research and Documentation

It can be understood from this study that modernization cannot be thought separate from the industrialization process both in Turkey and the world scale. The economy policy has an organic relation with modernism and industrialization. When the economic crisis occurs, the other contexts are affected, and the extension of social life can be in the built environment. The changing policy leads the modern industrial environment and cities into deindustrialized cities. However, the other questions arise for the buildings of these production places. Even though Turkey put some conservation legislation to the process, the implementations are associated with building scale.

On the other hand, Zonguldak should not be thought of as a city where it is a remarkable place for the industrial story of the whole country. Therefore, there should be a series of precautions, and comprehensive conservation needs to be generated strategy regarding the boundary of ZMA. In this point of view, scrutinizing the city master plan within the urban scale cannot be a fruitful discussion for this site since the sub-coal forms the area as a region that constitutes of Zonguldak, Bartın, Karabük. There are not all characteristic elements of a typical city. As understood from the case study, buildings cannot be thought individually since all of them were established and planned as a result of development scenarios which made by collaborations of different actors within a process. Also, economy and policy have always related to architectural and urban planning through the modern period. From region-based aspect, cities and surroundings have developed under the character of the production elements. So, any works related to the city should start from a regional approach. That is why a series of collaborations and researches form a convincing industrial heritage conservation strategy or plan in time. Also, the implementations should be based on legislation and be prepared by considering the European industrial culture projects and visions or strategies of institutes.
From the research, it is obtained that the main problems of the central coal washery area were (Ateşok, 2004) high operating costs due to old fashion technology, hardships on operation conditions, incompatible production with the coal demand. Ersoy and Şengül (2001) outline this situation with deindustrialization. The decline in mining-affected the furnaces, worker extraction, early retirement, and uninsured operation (Ersoy & Şengül, 2001, p.346). Workers do not welcome social and labor conditions. On the other hand, an adaptation of the coal sector to the alternatives cannot be realized easily without comprehensive planning (Ersoy & Şengül, 2001).

In value-based history, there are parallel value definitions for both past and present by merging the existing data and interviews that create two types of values. There is an organic relation between contexts and values. For the perceived values from interview analysis, there are a time and scale-based value diversity in terms of different stakeholders. Also, some of the values considering the context come forefront. For instance, community spirit and production culture constitute the socio-cultural, identity, and symbolic values in the context of Zonguldak. That is why sociocultural, identity, symbolic, and economic values have the noticeable mentioned frequency for the city scale while identity, symbolic, document, and technical/technological values become crucial in the analysis of interviews for the central scrubber scale. From this result, the proposed prominent values of an industrial city and site scale emerge as to use in the industrial heritage conservation studies. Also, this set can help to determine which asset will be preserved in which context.

On the other hand, while some values can be in existing data, some cannot be evaluated quickly due to the unsuitable content of data. The same thing is valid for perceived values. For example, ZMA and particularly ZMAP documents cannot be adequately found and are separate in different archives. The documents for the first years of scrubber are not well detailed as the recent ones. So, it is hard to compare
current statistics and perceptions with the past. Also, the aesthetic value cannot be evaluated individually comparing to others though a detailly designed interview.

While the documentation and preservation of the heritage are crucial in the academic field, the importance of the heritage mostly disregarded in different platforms like municipality, society. On the other hand, awareness of other fields is as critical as the academic field to sustain the heritage. For this reason, an interface between these fields becomes essential to study it. The importance of this interface has been increasing since 2006 International Day for Monuments and Sites organized by ICOMOS under the “industrial heritage” concept.

As understood from the study, the importance of national and international organizations in the conservation of industrial heritage is unignorable, and the network of institutions of Turkey with international platforms is quite developed. There are concerns and related conservation projects made in a motivated way in the country. However, there is a lack of organization-specific to industrial heritage. With global platforms such as DOCOMOMO, ÇEKÜL, and ICOMOS, problems in this field cannot be solved permanently. Due to the profound accumulation of industrial heritage, there is a necessity of a much more systematic and detailed approach. It is appropriate to consider industrial heritage conservation studies as a network or region rather than a single network scale. Due to the scope of international industrial platforms, not including Turkey as their region, there is a need to form new partnerships in international as well as national studies. As a result of this, there can be a national platform for documentation, protection, conservation, and appreciation in specific to industrial heritage in Turkey as it is in Europe. In addition to this, a conservation plan should be developed by considering the operational scheme in the planning of industrial areas. A building is also part of the whole city. Each structure has a duty and identity within the integrated system, both in terms of location and function. In the conservation, there should be interdisciplinary relations and the
inclusive process. A shared and collaborative industrial heritage approach is needed. There should be sustainable planning, which is the life cycle approach. Unfortunately, Turkey is still in the process of understanding and documenting the industrial heritage and constructing a theoretical structure (conceptual background). That is why still, organizational implementation cannot be.

The dynamics of the city evolve so fast with the increasing demands, so controlling or conserving an architectural product of the 20th century becomes tough (Elmas, 2005). Understanding from the Turkey context, increasing land economic value force people to focus on the transformation of industrial heritage sites based on marketing strategy. Therefore, this process creates an industrial heritage conservation problem due to the lack of culture, and the conservation policy of the state is specific to industrial heritage (Elmas, 2005). Briefly, false urban planning decisions which do not obey to reality, public unconsciousness, un-controlled practice like the wrong usage of cultural properties in order to encourage tourism, land speculation, lack of methodology in conservation master plans, and national conservation education make conservation of industrial heritage hard issue in Turkey.

On the other hand, in the light of value-based studies which are including the perceptions of stakeholders, the well-defined conservation policy and the process can be formed. In this way, the industrial heritage conservation problems can decrease in the time since the highest level of the economy, and historical consciousness makes the society to conserve these (Kuban as cited in Elmas, 2005). From this point of view, this dissertation is one of the steps in the conservation process.
7.3 **Contribution to Literature**

This dissertation contributes to the literature by examining the modern history of the country through an industrial city, the conservation history specific to industrial heritage. It reveals the intricate relations between stakeholders and heritage assets by presenting the values of industrial heritage. Also, this study unveils the planning scenario and documents of an industrial heritage site with its city systematically.

On the other hand, the theoretical studies obtained from the archival data cannot draw a wealthy picture of the existing situation individually. There is a need to include the users in this process. The inclusion of perceptions makes the study important by focusing on the importance of mapping analysis techniques for conservation. Also, explaining them by using spatial information is another contribution to this thesis. To conclude, this thesis presents the differences among archival information and stakeholders, so the adaptation of value-based studies to the practice on the field can occur in the future.

Conservation is a holistic process that including documentation, analysis, representation, management, tourism, and marketing or commodification. Therefore, any efforts made on a particular heritage site should be within the whole aspects of conservation. These systems which make future adaptations possible during the documentation of heritage and include the perceptions of actors will be beneficial in the further stages like marketing and commodification named as reterritorialization or creative industry (Xie, 2015). The preservation of the site is not possible due to the discrimination on the views which can be observed in local newspapers, archives, and interviews, as defined in Çörek’s (2018) study. In another way, both authorities and different parts of the society cannot comprehend the value of industrial heritage mutually. That is why industrial heritage is lost and not preserved today. Today, the Zonguldak case can be thought of as a “terrain vague” (Xie, 2015), in-between situation in the site. It is open to temporary and contingent forms of occupation. From
this point of view, this study contributes to literature by presenting the problems of an industrial heritage site which locates in the city center.

7.4 Further Research

This study establishes an initial step of further studies on forming the relationship between inclusive conservation process and creative mappings. The mappings, particularly GIS platforms, can be enhanced in the conservation issues to implement an inclusive conservation process. The increasing interest in inclusive design approach stems from the crucial role of this system in the negotiation and decision-making processes. There is a need to study and learn more about broad social engagement, which is generally desirable (Avrami, 2000). This potential of inclusive design can be used in the design of problematic areas like in preservation of heritage sites. Making decisions and producing information about heritage preservation would be efficient with the inclusive design method. In this way, the optimum implementations can be realized, and the actors of the site can be satisfied. For detail information, the other mapping techniques and inclusive design process are in the appendices.

On the other hand, the research can go on profoundly the setting various sample groups with different survey techniques in similar cases. Also, the other studies can examine these values, and practical use of the perceptions can be tested. As of last, future studies focusing on industrial assets, particularly in Turkey, can use the literature of this thesis as a guide.
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APPENDICES

A. Interview Questions

Interviewees: Decision Makers, Site Workers, Researchers

Name Surname:

Birth of place and year:

Occupation & Education Level (University/Department):

Job Place, Position, Duty and Duration:

Name or Year of Study or Research on the Field:

Living time in Zonguldak:

SECTION A: ZONGULDAK CITY
(Social-Cultural Life, Education and Mining Activities in General):

A1. Kömür olmasaydı Zonguldak nasıl bir şehir olabilirdi? Ya da Zonguldak’ın ekonomik ve kültürel açısından kömür kadar güçlü olduğunu düşündüğünüz bir başka yönü var mıdır?

A2. Zonguldak insanı ve kenti için önemli olduğunu düşündüğünüz en dikkat çekici kamusal yapı ya da alan nedir? Neden?


A4. Çocukluğumuzda ve bugünkü günlük yaşamımızda düzenli gittiğiniz sinema-lokali-tiyatro-dernek yapısı ya da kentsel alan var mıdır, neresidir?

SECTION B: HARBOR – CENTRAL SCRUBBER – RAILWAY RELATIONS
(Past-Present)

B1. Çocukluğuzdaki (varsayılmaktadır) Liman-lavuar-demir-yolu arasındaki ilişkilerinizi anlatmak ister misiniz?

B2. Çalıştığınız dönemde liman ve demiryolu ile lavuar arasında nasıl bir ilişki vardır?

B3. Bugünkü alana baktığınızda liman-demiryolu size ne ifade ediyor, kentteki yerini nedir, bu ilişkiyi nasıl değerlendirirsiniz?

B5. Sizce Gazi Paşa Caddesinin lavuar alanı ile nasıl bir ilişkisi var? Bir anı üzerinden de anlatabilirsiniz.

SECTION C: CENTRAL SCRUBBER (PAST-PRESENT)

C1a. DECISION MAKERS:

C2a. DECISION MAKERS:
Tesisin çalıştığı yıllarda fiziksel görünüm (estetik, kimlik) ya da üretim-iş gücü (ekonomik katkı, teknolojik olarak yeni olması) açısından lavuarın nasıl olduğunu düşünüyor musunuz, hisleriniz nasıldır?

C3a. DECISION MAKERS:
Lavuar alanının bugünkü halı ile ilgili hisleriniz nedir? Alana baktığınızda fiziksel olarak lavuar alanını en iyi ifade eden şey nedir? Fiziksel ya da soyut alanı tanımlayan şey sizce nedir?

C1b. SITE WORKERS:
Yaklaşık kaç kişi çalışıyordu ve birimler nelerdi?

C2b. SITE WORKERS:
Çalışma saatlerinizi nasıl organize ediyordunuz? Haftada kaç gün ve saat çalışıyordu, vardiyalar var mıydı nasıldı? Serbest zamanlarınızda gittiğiniz yerler nereydi (tesisin içinde ya da merkezde)?

C3b. SITE WORKERS:
Merkez Lavuar alanındaki işiniz dışında gittiğiniz kulüp aktivite merkez dernek vs var mıydı? Neresiydi?

C4b. SITE WORKERS:
Lavuar alanındaki yapıların birbiriyile ilişkisini (arazideki üretim işleyişini) anlatır mısınız?

C5b. SITE WORKERS:
Merkez Lavuarda geçirdiğiniz günleri düşününce alanı nasıl tanımlarsınız? Bu alan size ne hattırsatıyor? Eskiden alana ilgili ne düşünürdünüz? Bugün Lavuar sizin için ne ifade ediyor? Aklınızda kalan size ilginç ya da güzel gelen bir anınız ya da olay var mı?

C6b. SITE WORKERS:
Sizce merkez lavuar alanını diğer lavuarlardan ayıran ya da benzeyen özelliği nedir? Neden?

C7b. SITE WORKERS:
Çalıştığınız dönemde tesisin fiziksel görünüm (estetik, kimlik) ya da üretim-iş gücü (ekonomik katkısı, teknolojik olarak yeni olması) açısından nasıl olduğunu düşünüyorsunuz, hisleriniz nasıl? Bugün nasıl?

C1c. RESEARCHERS:

C2c. RESEARCHERS:
Yaptığınız çalışmalardan yola çıkarak alanın yıllar içinde geçirdiği süreci nasıl değerlendiriyorsunuz? Fiziksel görünüm (estetik, kimlik) ya da üretim-iş gücü (ekonomik katkı, teknolojik olarak yeni olması) açısından düşünebilirsiniz.

C3c. RESEARCHERS:
Çalışmalarınızın doğrultusunda fiziksel olarak lavuar alanını en iyi ifade eden şey nedir? Lavuar alanının bugünkü halı ile ilgili hisleriniz nedir?

C8. Tesisin en iyi ve en kötü diye tanımladığınız dönemi ne zaman? Neden?

C9. Alanla ilgili sizi rahatsız eden bir şey var mıdır, nedir?

C10. Lavuarn kent yaşamı ve kentli açısından bir anlamı (katkısı) var mıdır (geçmişte ve bugün), varsa ne olduğunu düşünüyorsunuz? Sizdeki anlamı nedir?


C12. Lavuarın kentin diğer endüstriyel alanları ile birlikte değerlendirilmesi konusundaki düşünceleriniz nelerdir?

C13. Sizce alan nasıl değerlendirilmeli, neden?

SECTION D: GENERAL EVALUATION QUESTIONS

A5. Zonguldak ve Kömür üretimine bakış açısından geçmişten bugüne değişiklik var mıdır? Varsa ne yönde bir değişim söz konusudur?


215

B. Interview Transcriptions

a01: (Architect, Member of Municipality, born in Zonguldak)


O motorlar şimdi nerede Ne oldu hurda mı? Belli bir süre çalışAITken sonra hurdaya dönüştürüyor burada insan yaratıyor onları atölyelerde. Şimdi şöyle bir şey ki şirketler dışarıdan sipariş veriyor burayı kapattığı gibi


Eğitim Ocaga aslinda bir okul yani? Tabii Okul. Önce oraya gidiyorsun Oraya giriyor musun çıkıyorsun bir eğitim alıyorsun bir tane vardı şu an Bugünün onun yanında maden müzesi var Biz aslında gerçek 1 Ocak'ta maden Müzesi olsa vatandaş geldiği zaman müzeyi geçse orada ocağa girse Burada şimdi 500 metreye kadar iniyorsun 500 metre Deniz seviyesinin altında iniyoruz daha da alta iniliriz 600 700 metre.


Merkezde önerilen projekti fonksiyonları o kadar da gerçekleşmebebilir öneriler olmadiğını söyleyorsunuz? Yanı parasal duruma alakali Şimdi bunu kim yapacak belediye mi yapacak. O durumda değil yapamaz. TTK'nın yapması lazım. TTK buna bedel veriyor. O bedelin üzerinden bu mümkün


**Siz Çocukken de vardı değil miyses?** Ama ben o kadar etkilenmedim. Uzakta olduğunuuzun içinde, etrafında oturuyordum bizim uzaktı. Biz Bahçelievler waktu orada oturuyorduk. Ama bunun yakınında otularan hep gürlütüsünden bahsededir.

**Ama siz gündüz gözlemiyorsunuz değil mi?** Ama şimdi 2004'ten sonra bu onların (TTK'nın) politikasından sonra sökülmeye başlandı.

**Sökmülemeden önce burasi nasıl bir merkezdi hatrilyor musunuz özellikle Çarşı alani?** Orada çalışanları düşünüyorsanız merkeze yakınılığı açısından onlar için iyi ama bence uygun değil. Ama o günkü şehirden 57 li yıldarna binalar var. Liman orada yüklemesi var. Limanla ilişkili. Bu taraftan da trenle ilişkili sonra onların bantları vardı işleri döküyörlerdi. Taa üniversiteinin O sahalarına üniversite yokken oraları dökülerler. Denize doğru ve orada dökülenler de vatandas orada bu işlerden körüm çıkıyordu Kaça körümler var yani şimdi o elekler var ya rantable dediğiniz o. Zayiat
veriyor. Demek ki onu giderememişler de gidiyor. Denize boşaltılıyor. Şimdii ne yapıyor
vatanş o dökülen yerde onları topluyor satıyor. Onlar orada bir ticaret yapıyor. Çok eskiden ama bu.

Şu anda sadece kuleler kaldı şimdi ziyin belediyenin bu alanla ilgili bir fırsat imkânı olsaydı alanı nasıl
kullanmaya nasıl kullanmak daha makul olurdu? Meydan olarak kullanılamasına bence toplumun yararına
olurdu. Şimdii bizim simgeleşen bir Meydanımız yok ki. Madenci Anıtı'nın olduğu yer bizim simgemiz.
Nitelikli bir meydan yok tabii. Valilik Konağı'nın olduğu yer var burada da gösteri sanat olsun konser
olsun.

Günümüzde ve eskiden ziyin önemli olduğunu düşündüğünüz kamu yapıları var mıdır? Valilik binası
1930'larda yapılmış bir bina ama o yıldır 90'lardan sonra yenishi yapıldı. Melih Karaaslan'ın binası bu.
94'te yapılmıştir o bina. Belediyeye binası Valiliğin karşısında bina idi şu an Kültür Merkezi olarak
kullanılıyor. Belediyeye Kültür Merkezi olarak kullanılıyor. Sinema var Esrardar halk eylmişi onarı
39-7'lerde yapılmış o da yarışma projesi. Halkevi ile sonradan belediye yapımları tescilli bir bina
ben de geçmişte orada çalıştım 10 senenin üzerinde çalıştım. Benim çok(187,337),(874,375)
geçmemiş. Binanın karşısında Park vardı şu an İnönü heykelinin olduğu yer. Bir tane çocuk bahçesi vardı
Biz orada kiyarım. 1 tane palmye ağacı vardı orada.

Çocukluğunuzda Zonguldak le şimdiki Zonguldak'ı kıyaslarsak ziyin tarıflarısınız bu değişimi? Farklı
tabii daha boğuk. Daha yaşlı olurdu. Şimdii her taraf biton yüzü olur. Orada Bahçelevleri diye geçiyor ama şimdii
ev diye bir şey kalmadı Ona bakarsan simgeleri vardı. Mesela açık hava simgeleri vardı. Yazın açık
hava simgelerine giderdik. Ama şu anda yok. Şimdii Kelebeğin Rüyası Var film. O 1940'ları
anlatıyor Zonguldak'ta. Ona televizyon falan yoktu. Olmadığı için biz de akşamları konserlere
O da projeye yapılmış ziyin şey gazino vardı.

Çok teşekkür ederim.

a02: (MSc City Planner, Member of TTK, born in Zonguldak) (e-mail interview)

Kömür olmadı Zonguldak nasıl bir şehir olabilirdi? Ya da Zonguldak'ın ekonomik ve kültürel
asıl kömür kadar güçlü olduğu düşünürüz bir başka yönü var mıdır? Kömür olmadı
Zonguldak diye bir şehir olmazdi en azından şu an bulunduğu konumda böyle bir şehir olmazdı.

Zonguldak insan ve kenti için önemli olduğunu düşündüğünüz en dikkat çekici kamusal yapı ya da alan nedir? Neden? Madenci anıtı önündeki meydan. Tüm açık hava toplantıları bu anıtı önünde
geçerler. Doktorlar diye geçiyor. Herşey için kömür ve madenciye de vurgu yapılıyor. Kent hafızası için çok
önemi.

Kent merkezine bakışınızda çocukluğunuzda bugünkü nasıl bir değişim söz konusu? Nüfus
yapımı ve insan profili, sosyal-kültürel yaşam, trafik, yapımı ve görüntüları açısından
değerlendirilebilir. Son yillarda özellikle üniversitelerinin öğrencilerinin artması paralel olarak
kent merkezi ve üniversite çevresinde önemli ölçüde sosyal mekanların artışı söz konusu. paralel olarak
sosyal kültürel mekanlar genişmesi görillezdir.

Çocukluğunuzda ve bugünkü günlük yaşamınızda düzenli gittiğiniz sinema-lokal-tyatro-dernek yapıştı
ya da kentsel alan var mıdır, neresidir? Maalesef çocukluğunuzda çok sık gittiğimiz simgelerden
hiçbiri bugün yerinde kalmadı.

Çocukluğunuzda (varsa) Liman-lavva-demiryolunu ziyin hatırlıyor musunuz? Bir anı üzerinden ya da
kszaca görünüşünü size hatıralattıklarını tarıflar misiniz? Karayolunun çok bozuk ve uzun olması
sebebiyle demiryolu ile karabük'e kadar gidip oradan otobüs ile ankaraya yolculuklar yapıldığı
hatırlıyorum.


Sızcen Gazi Paşa Caddesinin lavuar alanı ile nasıl bir ilişkisi var? Bir anı üzerinden de anlatabilirsiniz. Gazişa caddesinde gezeken her an Lavuar alanında gelen sesleri (tren yada diğer çalışan makinelerin sesi) duyulması mümkün idi."
Sizce alan nasıl değerlendirilir, neden? Sosyo Kültürel bir odak olmalı kentin buna ihtiyacı var ve bu konuda istihdama dönük yeni sektörlerin gelişilmesi gerektiği konusunda da görüş birliği vardır.


Sizce son yıllarda kent merkezi nasıl gelişmektedir? Memnun musunuz, değilse asıl sorun nedir ve nasıl çözülebilir? (Birkaç cümle ile)

Üniversitenin öğrenci sayısının artması kent merkezinde sosyal hayatın artışı sağlamış durumda. Tek bir caddede oluşturulan trafik sorunu her geçen gün kendini daha fazla hissetirmektedir.

B01: (Mining Engineer, operation engineer at Central Scrubber in 1990s, 2000s, born in Zonguldak)


Sizin çocukluğunuzdaki Zonguldak ile çalıștığınız dönemdeki Zonguldak ile bugünün Zonguldak arasındaki benzerlik farklılıklar var mıdır? Nelerdir? Yani bu iş döndemi düşündüğünüzde aklınızda

Gazipaşa Caddesi ne silikta kullanıyordu? Gazipaşa Caddesi de geçti gençliğiniz. Yani bir aşıbg bir yukarı.


Sizin çalışma döneminize caddede demirraysı yoktu kalmamıştı? Yoktu hayır. Zonguldak'ta ben görmedim. o Annen baban görmüştür öyle şehrî ortasından.


çalışırken çalışanın makinelerini yapışmayan bakır işleri o yardımcıdı yapıldı. Tabii haftada 7 gün de herkes bir gün izin kullanırdı ona göre personel izinleri düzenlendirdi.


180 170 liraya satmış alıyoruz


Bugün alana baktığımızda size ne fade ediyor? Yani Zonguldak lavvar devam etsedi keşke diyorum her türlü dediğim gibi ihtiyaçsi görüldüyordu kurumun yalnız belli yenileştirmelerle bir takım şeylerle yapıp zaten çalışabilir diye kurum bu kadar akıncı çıkmaz de şimdi atık sahasını var. Lavuvarların ihale sorunları var. Özellikle şirketler verdik ama 2-3 ay sonra kömürü nerede yükayacağını konusu pek belirgin değil.

Mesela liman var burada sanırım Burada Limanının etkisi de var değil mi? Limanla bizim şu an pek bir işimiz kalmadı. Yani kurumun oradan transferi yok düşüncüyorum da ithal kömür gemileri boşaltıyor küçük demir fahit geliyor Onlar boş oluyor yıldızdan bir kömür gelip gidiyor biz de lazer olursa kullanıyorum. Şimdi bizim orada kendine bir sahamız var oraya bir kömür döküp aşağıdan toz geliyor diyce çevreme müdürüne şikayet edip de kullanıyoruz küçük demir falan geliyor işimiz kalmadı pek belirgin değil.


Peki son olarak tekrar alana dönemek istiyorum. Alana baktığınızda size ne ifadeler vermek istiyorsunuz? İhtihal ile alana baktığınızda size ne ifade ediyor? Sizce Zonguldak'ın içindeki istasyonlar nasıl bir kenti olacak? Yani buradan kömür çıkar devletle kalmaz Özel sektör çıkarır Zonguldak'ta bundan ileri gidermesiyle böyle devam ederse Sizce Zonguldan külünü nasıl değil mi? Alana baktığınızda size ne ifade ediyor? Yani Zonguldak lavvar devam etseydi keşke diyorum her türlü dediğim gibi ihtiyaçsi görüldüyordu kurumun yalnız belli yenileştirmelerle bir takım şeylerle yapıp zaten çalışabilir diye kurum bu kadar akıncı çıkmaz de şimdi atık sahasını var. Lavuvarların ihale sorunları var. Özellikle şirketler verdik ama 2-3 ay sonra kömürü nerede yükayacağını konusu pek belirgin değil.


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Ama siz çalıştığınız dönemde bu kültür hissedemiyordunuz? Tabi biz geliştığımızde mesela benim ilk yıllarında tiyatro burada davet edildi. Konserler sanatçılardan davet edildi. Bulunlar mesela sinema salonlarında biz çalışanlar içcilere her bölgede sunuldu. Ama bu geçiş zaman dilimi içerisinde hepsi de iptal edildi sanki......


O güruültü de bunlardan mı geliyor? Zaten 740 tane makina çalışıyor. 12/7 megawatt vakumlu güçümüz var. Kurulu güç lavunarın. Sen 12/7 megawatt kurulu güçü... 740 elektrik motoru var. Güruültü patıtı
yani bunlar doğal şeyler. Mesela saatte 750 m³ su girip çıktıyor. Bu kadar tulumbar var. Şimdi bu büyük kanzandan sonra elektre gidiyor. Elekte kömür eleniyor. Burada 0.10 mm demir çelikler için meteroloji kömür yakıyan. En kaliteli de bu. 0.10 7000 kcal (meteroloji kömürü); 2-0.10-100 mm (yakumılık kömür); 600-500 kcal (Kül kömürü); %10 termik santral yakıt mikst ya da Çalışağı filtrasyon ürünü %40 külü (evde yakılmaz hiç bir işe yaramaz).


Çaydamar var. 300 m ilerisinde çaydamar denilen büyük bir ocak var. Oradan yükleniyor kömür. Zonguldak lavuari, kozlu, üzülmez ve çaydamar kömürlerini yakayan tesis. Şimdi buradaki lavuari söktüler buradan Türkiye geziştiriler. Özel sektöre verdiler yani.


Lavuar yıkıdiktan sonra iki yarışma düzenlenendi hatırlıyor musunuz? Proje.downcase etkisi üzerine İsmail Eşrefin belediye başkanlığı döneminde projeye yapıldı edildi.

Konuşula ilgili sizinle bir temasa geçildi mi? Bir kent konseyi yapılmış o dönemde… Yok. Şimdi bu konuda özelde konuşanlar var da sizin gibi olanların dışında burada kimse temas kurmaz.


Size eskiden TTK'da çalışanlarla kral derlermiş. Sabit aylığı var o zaman. EK hertosu bakıyor. 48 bin kişinin çalışması ne demek yani. Türkiye'nin her yerinden buraya göç gelmiş. Burada her yerden insan vardı. Kimse birbirini yadigarlamazdı çünkü hangi eve gitseniz burada hatta burayı burakın türkiyenin bir
yerinde eriğli kömür işletmesi eski adıyla şimdiki adıyla TTK’nın ya süngüşi ya küreği ya bıçağı mutlak bir şeyi vardır. Mutlaka vardır. Çünkü burada çok çeşitli vilayetten insanlar çalıştığı için mutlaka buradan birşey götürmüştür.

***

**b03:** (Retired Mining engineer, supervisor engineer at Central Scrubber in 1980s)


60larda nerede oturuyordunuz? Üzülmez semtinde.


Günde 10-12 bin ton arası kömür yıkanıyordu. Gürültüsü toz oluyordu. Ama teknoloji ilerledikçe o gürültüler de bertaraf edildi. Ama toz da bastırılamayana kadarıla aktif olduğu dönemde nasıldı? Kentin merkezinde olması, büyüklüğü, her gün tonlarca kömür yıkanması açısından nasıl değerlendirilirdiniz?

Sizin döneminiz altın çağı mıydı? Benim dönemim artık son dönemleriydı. Altın çağlarını 70, 60’lı yıllarında yaşamış, 7-8 milyon ton arası satılabilir üretim yapmış.


Lavuar alanını diğer lavuarlardan ayıran özellik nedir, neden burası bu kadar önemli? Şehrin merkezinde olduğu için. Merkezinde, yoksa bu alan şehrin 20km dışında olsa o kadar şey yapmakta. Merkezde olduğu için.<p></p>


de merkezdeki müllkiyet kira sorunu öğrencilere için çok büyük miktar fahş fiyatlar var. Öğrenciye ev vermiyoruz gibi her yer herhangi bir yaklaşım herkesin çocuğunu var. Ben kendi evimde vardı öğrencilere verdim. Olsa şimdii yine veririm.

Teşekkür ederim. Ben teşekkür ederim.

c01: (Architect, member of TTK, ZOKEV, a role in the registration process, experience in student’s competition of the site)


Kömür sadece bir üretimin parçası mıydı yoksa sosyal kültürel hayatın yansımaları var mıydı? İlk etapta elbette kömür üretimi karşısı olmuş. Yani amaç olmuş kömür çakmak ve sanayide askeride donanımlarda fabricalarda kullanmak. Ama gelisen süreç içerisinde elbette tamamen sosyolojik olarak kültür olarak her şeyin parçası olmuş ve hala öyle. Yani keşifteki kelimelerin kömür öğretmek. Mesela kimi kelimelerini Fransızca olmasa da kömürden kaynaklardır. Yani Fransızca kelimeleri biliriz Çünkü ilk Fransızlar vardı. Onların kullandığı kelimelere hala devam ediyoruz. Tabii çağı damardan bahsediyoruz. Çaydamar Türkçe'de bahsedildiği gibi damar değil onların kullandığı kelimelere hala devam ediyoruz. Çünkü Zonguldak kadar küçük bir coğrafyanın başka bir örneği yok. Çünkü ilk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Karadon gerçekten karadan gelen bir dön. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varmış. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kültür olarak her şeyin parçası olmuş ve kömür damarı da varması. Çünkü İlk kü...


çok ciddi bir düşüş var. Yani bunu sadece kente bağlıyorum. Ama eğer Türkiye'deki diğer kentlere bakarsan buradaki insan profilini değerlendirdiğim daha bir uçtayız.


Ama kömür üretimi bitmez bir sekillde devam eder değil mi? Yani elbette. Ne şekilde edecektir o bir tartışıma.


mesellelere de sirtını dönmeyen kentsel olaylarda da her türlü mühahaleyi yapan bir vaktif. Benim içinde olmanın sebebi de bu zaten.


Yani burunun gençleri endüstri mirasını ne olduğuunu bilmem di bıçaclar? Ne gençleri ne yetiştikleri bilmiyorum. Bununla beraber avaliaçãolar ama bilmiyorum.

O zaman kaybolmasına da şaşırmayacığım. Tabii ki şaşırmayacağım.
Kömür olmasaydı Zonguldak nasıl bir yer olurdu? Zonguldak’ta kömür olmasaydı, küçük şehir bir sahil kasabası olarak kalmıştır. Biz de burada olmazdık ama.


ve tamamen 12 eylülle toplu iş sözleşmelerinde bir yandan kararları arkasında 12 eylül, toplu sözleşme sürecinin askıya alınması, teşmil uygulanması, 82 84 86 74lerde kazanıldı. Zonguldak son derece A
Peki çalışma şartlarının iyi olduğu altın çağı ne zamandır? Bir yandan siyasal baskılarla gelişen sol ve i
devalüasyonla başlarak kamu işletmeciliği artık tasfiye edilmesi gereken bir yük olarak anlatıldı. Çok büyük bir ekonomik modelden serbest piyasaya liberal ekonomik modele geçti. Mucidi de işletmelerin kapanması gibi?


Peki bu üretimin düşmesi işçi sayısının azaldığı haklar konusunda fiziksel yansıması ne zaman oldu, işletmelerin kapandığı gibi? 24 ocak 1980’de Türkiye ekonomik olarak bir dönüştüm yaşadı. İkameci ekonomik modelin yeni piyasaları liberal ekonomik modele geçti. Mucidi de Özel zaten. Onunla birlikte kamu işletmeciliği artık büyük bir devaşasyona böyle bir hikayesi var. Tabi bu 24 ocak alında, hemen 25 ocakta olduğu de bitti değil. 70lilarda çok ciddi toplumsal bir müharip. Sosyal ve ekonomik hakki 74lerde kazandı. 80lere kadar işçilerin üret standartları fallan başaShip 2.24 ocak kararları arkasında 12 eylül, toplu sözleşme sürecinin askıya alınması, teşmin uygulanması, 82 84 86 toplu iş sözleşmelerinde bir yandan Zonguldak ve Havalis Maden İşçileri Sendikasındaki teşlimiyetçi ve tamamen 12 eylülün bütün varını yoğunu teşlim etmiş cuntayla işbirliği içerisinde olan bir sendika


2006 kasımında yıkılırken bu sürec devam ediyordu... Yıkım sırasında müracat ettik mimarlar odası ve çok hızlı bir şekilde karar alındı. Tescil kararını aldığı andan itibaren acaip hızlandılar. Şimdi toplumda bir koruma bilinci yok ki yani. Hangımız ortalamama bir insana endüstri mirası diye anlatabilir...

Endüstri mirası demeye gerek yok ki direkt bir konuda yaşayan insanlar o alanı bilen haftaların içinde var olanları derleyip toparlayıp bir hikayeye dönüştürebilirsek bile…

Peki bu alanın dışında genel olarak Zonguldak ve çevresindeki bütün endüstrisi yapılıp yapamayız? Elbette almayızm. Bu kenti nasıl bir toplumuz... Kendi babasının dedesinin yaşadığı evi yıkıp müteahhitle verip bin türlü dalavere ile onu bilmem kaç katlı bir yapıya dönüştüren bir toplumuz.

Peki bu alanın dışında genel olarak Zonguldak ve çevresindeki bütün endüstri yapılıp yapamayız? Elbette almayızm. Bu kenti nasıl bir toplumuz... Kendi babasının dedesinin yaşadığı evi yıkıp müteahhitle verip bin türlü dalavere ile onu bilmem kaç katlı bir yapıya dönüştüren bir toplumuz.


Çalıştığınız dönemde liman ve demiryolu ile lavvar arasında nasıl bir ilişki vardı? Orijinal havza tasarımındaki lavvar konumuna ve bu ilişkileri hayran olan turların zamanında limanın heder edilmesine ve demiryollarının gelişirilmemesine de çok üzümüştüm.

Bugün alana bakışımızda liman-demiryolu size ne ifade ediyor, kentteki yeri nedir, bu ilişkili nasıl değerlendirirsiniz? Demiryollarına ilgisiz kaldığımda ve limanın daha çok mesire yerine dönüştüğünü görmekteyim.


Çalışmalarınızın doğrultusunda fiziksel olarak olarak lavuar alanını en iyi ifade eden şey nedir?
Lavuar alanının bugün halı ile ilgili hisleriniz nedir? Havza madenciliği esas所在地nda lavvarın yeri muhteşemdir. İlk havza madenciliğinin sonu anlamında giderek kötüye gitmiştir (eskimiş).

Alana ilgili sizi rahatsız eden bir şey var mıdır, nedir? Bu alanın rantiyelere peşkeş çekilebileceği olasılığı çok rahatsız edici.

Lavuarın kent yaşamı ve kentli açısından bir anlamı (katkıları) var mıdır (geçmişte ve bugün), varsa ne oldugunu düşünüyorsunuz? Sizdeki anlam nedir? Zonguldak’ı bir taşkömürü havzası ilan olarak bazı yerler kent yaşamı için bir dönen olarak bir anlamda bir alan olarak kabul edilir. Ancak bu alanın kapanmasına sebep olanlar peş peşe yaşanıyor. Lavvarın kapatılması, bir olası olay olabilir.


Lavvarın kapatılması, bir olası olay olabilir. Ancak bu alanın kapatılması, bir olası olay olabilir.

Lavvarın kapatılması, bir olası olay olabilir. Ancak bu alanın kapatılması, bir olası olay olabilir.

Lavvarın kapatılması, bir olası olay olabilir. Ancak bu alanın kapatılması, bir olası olay olabilir.

Lavvarın kapatılması, bir olası olay olabilir. Ancak bu alanın kapatılması, bir olası olay olabilir.

Lavvarın kapatılması, bir olası olay olabilir. Ancak bu alanın kapatılması, bir olası olay olabilir.

Lavvarın kapatılması, bir olası olay olabilir. Ancak bu alanın kapatılması, bir olası olay olabilir.

Lavvarın kapatılması, bir olası olay olabilir. Ancak bu alanın kapatılması, bir olası olay olabilir.
## C. Translations

<table>
<thead>
<tr>
<th>English</th>
<th>Turkish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Industry Centre</td>
<td>Yapı Endüstri Merkezi</td>
</tr>
<tr>
<td>Dilaver Pasha Regulations (1867)</td>
<td>Dilaver Paşa Nizamnamesesi (1867)</td>
</tr>
<tr>
<td>EKI: Ereğli Coals Enterprise</td>
<td>Ereğli Kömürleri İşletmesi Müessesesi</td>
</tr>
<tr>
<td>Ereğli Colliery Company</td>
<td>Ereğli Kömür Madeni Kompanvani</td>
</tr>
<tr>
<td>Ereğli Imperial Mines Regulations</td>
<td>Ereğli Maadin-i Hümayun Nezareti Nizamnamesi</td>
</tr>
<tr>
<td>High Council of Real Estate Antiquities and Monuments</td>
<td>Gayrimenkul Eski Eserler ve Anıtlar Yüksek Kurulu</td>
</tr>
<tr>
<td>Industrial and Credit Bank of Turkey</td>
<td>Türkiye Sanayi ve Kredi Bankası</td>
</tr>
<tr>
<td>Industrial and Mining Bank of Turkey</td>
<td>Türkiye Sanayi ve Maadin Bankası</td>
</tr>
<tr>
<td>Industrial Development Bank</td>
<td>Sanayi Kalkınma Bankası</td>
</tr>
<tr>
<td>İzmir Economic Congress (17 February - 4 March 1923)</td>
<td>İzmir İktisat Kongresi</td>
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<tr>
<td>Karabük Regional Council for the Protection of Cultural and Natural Heritage</td>
<td>Karabük Kültür ve Tabiat Varlıkları Koruma Bölge Kurulu</td>
</tr>
<tr>
<td>Law on Antiquities No. 1710</td>
<td>1710 Nolu Eski Eserler Kanunu</td>
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<tr>
<td>Law on Cultural and Natural Heritage No. 3386</td>
<td>3386 Nolu Kültür ve Tabiat Varlıkları Kanunu</td>
</tr>
<tr>
<td>Main Treasury Administration (1848-1865)</td>
<td>Hazine-i Hassa (1848-1865)</td>
</tr>
<tr>
<td>Marine Ministry (1865-1909)</td>
<td>Bâhriye Nezareti (1865-1909)</td>
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<tr>
<td>Mine-Labor Union</td>
<td>Maden-iş Sendikası</td>
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<tr>
<td>Ministry of Commerce (1909-1920)</td>
<td>Ticaret Nezareti (1909-1920)</td>
</tr>
<tr>
<td>Ministry of Finance (1920-present)</td>
<td>Maliye Nezareti (1920-present)</td>
</tr>
<tr>
<td>National Protection Law (27 September 1940 - 1 September 1947)</td>
<td>Millî Koruma Kanunu (27 September 1940 - 1 September 1947)</td>
</tr>
<tr>
<td>Protection of Cultural and Natural Assets and Various Laws</td>
<td>Kültür ve Tabiat Varlıklarını Koruma Kanunu ile Çeşitli Kanunlarda Değişiklik Yapılmasını Hakkında Kanun</td>
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<tr>
<td>Regional Planning Department Ministry of Development and Settlement</td>
<td>Bölge Planlama Dairesi İmar ve İskan Bakanlığı</td>
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<td>The Law for Encouragement of Industry (28 May 1927)</td>
<td>Teşvik-i Sanayi Kanunu (28 Mayıs 1927)</td>
</tr>
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<td>The Law on Expropriation of Management of (Expropriation Law, Füzyon)</td>
<td>Kömür Havzasındaki Ocakların Devleçe İşletilmesi Hakkindaki Kanun (Devletleştirme Kanunu, Füzyon)</td>
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<tr>
<td>TKI: Turkey Coal Enterprises</td>
<td>TKI: Türkiye Kömür İşletmeleri</td>
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<td>TTK: Turkish Hard Coal Institution</td>
<td>TTK: Türkiye Taşkımürü Kurumu</td>
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<tr>
<td>Turkey Union of Historical Towns</td>
<td>Türkiye Tarihî Kentler Birliği</td>
</tr>
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<td>Turkish History Survey Society</td>
<td>Türk Tarihini Tevik Cemiyeti</td>
</tr>
<tr>
<td>Worker’s Bank</td>
<td>İş Bankası</td>
</tr>
<tr>
<td>Worker’s Union</td>
<td>Amelecerrahi</td>
</tr>
<tr>
<td>ZCS or ZCCWA: Zonguldak Central Scrubber or Coal Washery Area</td>
<td>ZCS or ZCCWA: Zonguldak Merkez Lavuari ya da Kömür Yokama Tesisi/Alani</td>
</tr>
<tr>
<td>Zonguldak Higher Mining Engineer School (Zonguldak Higher Education and Industrial Engineer School)</td>
<td>Zonguldak Yüksek Maden Mühendis Mekteb-I Alısı (Zonguldak Yüksek Maadin ve Sanayi Mühendisi Mektebi)</td>
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<td>Zonguldak Metropolitan Area Municipalities Union Planning Organization Chief Expertise</td>
<td>Zonguldak Metropoliten Alanı Belediyeler Birliği Planlama Örgütü Baıçuzmanlığı</td>
</tr>
</tbody>
</table>
D. Archival Documents

Figure D.1. Commission of Ministries (1947-1948), the first decision of construction of harbor and central scrubber (Personal Archive of Zaman, 2019).
Figure D.2. 2010 Municipality Council Decision Paper documents the declaration of the site as special project area (Zonguldak Municipality Archive, 2019).
Figure D.3. 1970 Zonguldak TTK Statistics retrieved from personal archive of Zaman (2019).

<table>
<thead>
<tr>
<th>Bölge ve Bölüm</th>
<th>Ton</th>
<th>%</th>
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</thead>
<tbody>
<tr>
<td>Armutçuk</td>
<td>639.074</td>
<td>8.41</td>
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<tr>
<td>Kozlu</td>
<td>668.896</td>
<td>8.80</td>
</tr>
<tr>
<td>L. Harman</td>
<td>1.099.065</td>
<td>14.08</td>
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<tr>
<td>İhsaniye</td>
<td>261.020</td>
<td>3.44</td>
</tr>
<tr>
<td>Yekin</td>
<td>1.999.069</td>
<td>26.32</td>
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<tr>
<td>Üzülmez</td>
<td>679.664</td>
<td>11.58</td>
</tr>
<tr>
<td>Döver</td>
<td>782.880</td>
<td>19.38</td>
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<tr>
<td>Anna</td>
<td>437.727</td>
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<td>Ateş İşlemesi</td>
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<td>Yekin</td>
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<td>Karadon</td>
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<td>Gecik</td>
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<td>Kiliinci</td>
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Figure D.4. 1980 Zonguldak TTK Statistics retrieved from personal archive of Zaman (2019).

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<tr>
<th>Bölge ve Bölüm</th>
<th>Ton</th>
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<tr>
<td>Armutçuk</td>
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<td>Kandilli</td>
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<td>Toplam</td>
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<td>Kozlu</td>
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<td>L. Harman</td>
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<td>İhsaniye</td>
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<td>Toplam</td>
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<td>Üzülmez</td>
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<td>Döver</td>
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<td>Gecik</td>
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<td>Kiliinci</td>
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</table>
Figure D.5. 1926 Tevfik Çakmakçı Zonguldak City Map (retrieved from personal archive of Zaman, 2019).
Figure D.6. 1971-75 Zonguldak City Master Plans by Engin Erkin for ZMA (Sheet number: 0402, retrieved from personal archive of Zaman, 2019).
Figure D.7. 1949 Zonguldak harbor plan by Dutch Firm (Zaman, 2004).

Figure D.8. Basic production Scheme of site (Ateşok, 2004).
Figure D.9. +14.00 floor plan of site 1/100 scale (TTK Archive, 2019).
Figure D.10. A, B, C sections of site 1/200 scale (TTK Archive, 2019).
E. Research for Further Studies

Inclusive Design Approach

According to the British Standards Institute (2005), inclusive design is the design that is accessible and usable for many people without the need for particular adaptation or specialization. In this method, actors are participated and included to the design process. By this way, the outcome of the process can meet common needs and expectations. On the other hand, there is a need to specify the limits/potentials of the actors. In the literature, the user pyramid system is offered in showing the user capabilities and their impact on the process. In that system, the designers are defined at the highest place because of their capabilities. Nevertheless, there will be complex overlaps due to relations. So, the boundaries between actors, events, documents would not be clear. Eventually, this makes conflicts between them. As a solution, efficient tools can be regarded as a creative design technique.

![Figure E.11. Towards a generic approach for designing for all users](image)

Figure E.11. Towards a generic approach for designing for all users\textsuperscript{84}.

\textsuperscript{84} It is in Proceedings of RESNA '99, Keates, S., and Clarkson, P.J. (Long Beach, CA, June 1999), pp97-99
Creative Mapping Techniques

- Drift Map
Drift mapping technique presents information within a situationist behaviour. It is a production of new images of space and relationship to increase public consciousness and to promote participation in everyday life. In Debord’s Naked City (1957) study, he makes a representation of 19 different places within map of Paris by explaining this subjective, temporal experience as opposed to the counter movement perspective of the second style map (Sant, 2004).

Figure E.12. Naked City.85

85 Guy Debord’s study in Psychogeographical Guide of Paris in 1957.
- **Route Map**

“Today people in all European countries are looking back to those days that turned into the past, symbolized by thousands of industrial monuments that are cultivated and preserved as witnesses of our technical, social and migration history and as landmarks of a cultural identity of all citizens that has evolved through history. They urgently need our protection since there is no future without past.”

*(ERIH’s history in its official website, 2019)*

As described before, when the travel is the most important part in the mapping and places have understanding throughout this travel, route map is the preferable for the presentation of the information. The most significant map about the industrial heritage is organized by ERIH, European Route of Industrial Heritage. The motto is that every industrial asset is a crucial part of Europe’s industrial revolution.
- **Game Board Map**

![Game Board Map](image)

Figure E.13. ("180Spatial Agency").

In the maps which contain multiple actors, process goes as a medium of empowerment by allowing the local community to represent themselves spatially (IFAD, 2009). Those maps attempt to make visible the association between land and local communities by using the commonly understood and recognised language of cartography (Alanyalı Aral, 2018b)\(^{86}\). Besides, whole community members except from authorities can enrich the process with their different perspectives. On the other hand, there are some negative feedbacks about these techniques. When the borders are not defined properly, issues become more complex and can be time consuming and cost intensive and can lead to conflicts under the involved stakeholders (Alanyalı Aral, 2018b). As different from other techniques, game board map provides and presents the information. Participatory thinking forms the produced information and the representation of outcome emerges from that process. Various imaginations of

\(^{86}\) It is on the creative mapping techniques in architecture course note.
relevant participants lead the final outcome and process. In this mapping tool, communication is the crucial part of the process. The study of Bunschoten, R. & Chora (1993), London Tempelhof Urban Gallery scenario, combines research and practice in a four-stage process containing database, prototypes, scenario games (testing), and action plans. Throughout the process, there is a chance to work at a number of different scales, to extract unexpected and hidden local details and forces by providing data from people, places and organizations.

- **Story Map**

  “B. Harley’s (1987) conception of maps, first ‘as a kind of language’ – taken either metaphorically or literally, second on a symbolic level, and third with a perspective gained from the sociology of knowledge, from a Foucauldian point of view, is significant to see their roles as story-definers...All maps are thematic (Hall, 2004: 16). There is no mapping without stories. Maps involve the “attempts to make sense of the world”

  (Turchi, 2004, p.13)

Today, the number of story maps of like these sites as a smart tool have been increasing. These tools can provide transfer of the knowledge to different actors in the society including decision-makers on urban heritage and space, professionals from conservation, planning, architectural design and future generations. Due to the fact that elements composed of history and culture of each place, the attitude in each concept differs. Esri company is well known for this type of maps. The most important question for esri story maps is why they are important for heritage preservation, documentation and representation.
In city scale, “I am İstanbul” which is based multimedia story telling project realised by Tuzcu (2017) (http://www.niltuzcu.net/i-am-istanbul/) can be thought. In the project, 20th century fictional characters are formed to represent the story. The historical, social information of the characters are explained through the urban archive maps. Also, the background knowledge of the period related with economy, physical environment is presented. As urban scale, the other work of Tuzcu is İstanbul Urban Database. This study is a web-based mapping which blending archival documents of İstanbul in a GIS databased. In addition, the narratives are shown through the maps, so it creates an integration of architecture and urban scale. The open access quality of the project helps to mediate public and researchers. As the last, comparable archival maps provide the observer to comprehend the urban transformation.

87 It is retrieved from http://www.niltuzcu.net/i-am-istanbul/.