THE MAKING AND UNMAKING OF THE ZONGULDAK COAL BASIN: DEINDUSTRIALIZATION AS A PROCESS

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DECLARATION OF ORIGINALITY

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ABSTRACT

The Making and Unmaking of the Zonguldak Coal Basin: Deindustrialization as a

Process

This thesis investigates the social, economic, and political construction of the deindustrialization of the Zonguldak Coal Basin. For more than a century, the Zonguldak Coal Basin has been associated with coal mining, the capital of labor, and the industrial hub of Turkey, albeit these characteristics have been eroding by the deliberate policies and apparatuses of deindustrialization since the 1980s. As such, this thesis firstly focuses on the long history of making the Zonguldak Coal Basin as a resource frontier where the state authorities fueled their dreams of progress and a civilized nation by trying to secure the flow of coal. Secondly, it explores how this coal basin which has been central to the national economy, has come to be perceived as a burden. Within that context, it critically evaluates the emergence of a new way to calculate the value of coal due to the neoliberal restructuring of the state and energy market, as well as the concomitant resistance of coal miners to that neoliberal calculation. This thesis claims that neoliberalization process, in general, paved the way for the deindustrialization of the basin in particular. In relation to that, thirdly, this study examines the apparatuses and policies of deindustrialization, emphasizing that the term deindustrialization does not refer to the "coming to an end", but rather to a reconfiguration in the mode and capacity of coal production in favor of private operators in the basin. For this thesis, I employed ethnographic field research methods consisting of in-depth interviews, life histories, and collecting archival material. This study aims primarily to critically engage with Turkey's neoliberalization process and contribute to the field of labor history and studies on deindustrialization.

ÖZET

Zonguldak Kömür Havzası'nın İcadı ve Çözülüşü: Bir Süreç Olarak Sanayisizleşme

Bu tez, Zonguldak Kömür Havzası'nın sanayisizleşmesinin sosyal, ekonomik ve politik olarak nasıl kurgulandığını incelemektedir. Havza, yüzyılı aşkın madencilik tarihiyle müsemma, Türkiye'de emeğin ve sanayinin başkenti olarak anılsa da 1980'lerden bu yana uygulanan sanayisizleşme politikaları sebebiyle bu özelliklerini kaybetme noktasına gelmiştir. Bu dönüşümü anlayabilmek adına, bu tez öncelikle havzanın bir kaynak çıkarım cephesi haline getirilmesinin tarihine odaklanmaktadır. Devlet yöneticileri bu dönemde havzaya hususi önem atfetmiş, kömür akışını güvence altına almak kaydıyla ülkenin muassır medeniyetler seviyesine ulaşacaklarına inanmışlardır. Bu çalışma, Zonguldak kömürünün ulusal ekonomi için önemi irdeledikten sonra, bu önemin göreceli olarak yitiminin ve havzanın merkezi hükümetler tarafından neden ve hangi şartlarda bir yük olarak görülmeye başlandığının incelemesini yapmaktadır. Bu minvalde, kömürün değerini hesaplama yolunda yeni bir ekonomi-politiğin ortaya çıkışını, neoliberal yeniden yapılanmayla birlikte devlet ve enerji piyasasının dönüşümünü ve kömür madencilerinin bu neoliberal hesaplama biçimine karşı direnişlerini konu edinmektedir. Bu tez, Türkiye'de yaşanan neoliberalleşmenin, havza özelinde sanayisizleşmenin kapısını ve meşruiyet zeminini oluşturduğunu iddia etmektedir. Üçüncü olarak ise havzada sanayisizleşmeyi ele avuca getiren politika ve araçları incelemektedir. Bu inceleme sonucunda sanayisizleşmenin bir sonun başlangıcına işaret etmediğini havzadaki üretim biçimi ve kapasitesinin özel sermaye lehine yeniden yapılandırılmasıyla devam ettiğini vurgulamaktadır. Bu tez için Zonguldak'ta derinlemesine görüşmeler ve saha gözlemlerini içeren etnografik araştırma yöntemi kullanılmıştır. Bu tez, sanayisizleşme ve emek tarihi çalışmalarına katkıda bulunmayı amaçlamaktadır.

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ABBREVIATIONS

ANAP Anavatan Partisi, The Motherland Party

EKI Ereğli Kömürleri İşletmesi, Ereğli Coals Enterprise

GMIS Genel Maden-İş Sendikası, General Union of Mineworkers

IMF International Monetary Fund

SOE State-Owned Enterprise

TKI Türkiye Kömür İşletmeleri, Turkish Coal Operations Authority

TTK Türkiye Taşkömürü Kurumu, Turkish Hard Coal Enterprise

WB World Bank

ZMIS Zonguldak Maden İşçileri Sendikası, Zonguldak Mineworkers' Trade Union

CHAPTER 1

INTRODUCTION

This thesis is about the social, political, and economic construction of the deindustrialization of the Zonguldak Coal Basin. It is a process, as one of my informants has furiously described, leaving one geography to its own fate to rot. It is also about how local hard coal mining extraction and the wealth it has created are cast to be excluded from Turkey's development imaginations alongside the mining communities in the basin. The process of deindustrialization is frequently legitimized and naturalized by relying on a single argument that only emphasizes the economic loss of the state-owned coal company. Simply put, starting especially from the 1980s, the deep hard coal mining extraction was regarded as an unprofitable business in the eyes of the state elites and subsequent governments afterward. Since that time, by mooting the idea of an unprofitable business, each government, to different extents and methods, decreased the number of mineworkers, halted the necessary investments, tried to close unproductive mines, and redefined the hard coal market by both allowing private investments in the region and importing cheap hard coal from abroad. However, even today, most of the people whom I spoke to in the region doubtlessly oppose that economic simplification which previously seemed a robust fact to me. While listening to their counter arguments, imaginations of how things could be made differently, and memories of the past struggles against the compulsory retirement policies and privatization, the robustness of that economic fact started to dissolve. So, in order to understand how the process of deindustrialization is operated, which apparatuses, technics, and discourses are enacted, and how it is

reacted by the working-class communities, this thesis aims to follow how the deindustrialization is made in Zonguldak Coal Basin.

Before I arrived at Zonguldak to conduct fieldwork about the unintended effects of the after-life of coal mining, I had different expectations in my mind. Similar to what James Ferguson (1999) investigated in Zambian Copperbelt, I was planning to explore how the process of deindustrialization "effects on people's modes of conduct and ways of understanding their lives" as much as its material residues that obstruct forming new living arrangements. As a novice social scientist, I intended to critically engage with the progressive narrative of modernization where the bubble of prosperity and progress are collapsed by the decline of industrial retreat. My other purpose was also to trigger a serious discussion among climate activists and to justly think about phasing-out strategy from fossil fuels¹. Especially, I wanted to disrupt the common understanding, maybe "a comic faith" as Donna Haraway (2016, p, 3) describes, that frames climate crises only within the technological language². My primary intention was to demonstrate that exiting from fossil fuels, in this case from coal, cannot be solved merely by shifting from one energy regime to another, rather it requires political accounting for people whose lives, identities, communities, and livelihoods mostly enriched by the coal. Although the two purposes, critical engagement with the modernization narrative and

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¹ During my fieldwork, I learned that Greenpeace Turkey is launching a campaign called "Fair Transformation for Zonguldak". Working with a local non-governmental organization (Zonguldak Environmental Protection Association) and academics, Greenpeace Turkey's campaign tries to detect the effects of the coal industry on Zonguldak and prepare a regional fair phasing-out strategy by creating resilient communities and geographies in the midst of climate crises.

² There is a rising faith amongst all parts of society that actually believes technological innovations, apart from human affairs, can solve every problem from food security, and global poverty to climate crises. In its extreme forms, some groups of people in the US, who brand themselves as ecomodernists, welcomingly greet the new epoch of Anthropocene "as a sign of humankind's ability to renovate and control nature" (Hamilton, 2017, p, 23). In this thesis, I aim to portray that the problem is not about the heroic rhetoric of solving human problems with technology. On the contrary, by investigating political, economic, and social aspects of deindustrialization, I want to show that there is neither one group as humanity nor one single solution but different conflictual interests and affections that pave the way for deindustrialization against the others.

rethinking the phasing-out strategy by prioritizing the most affected ones, continue to constitute the main motives of this thesis, my initial time period alongside with the subject and research questions have changed drastically during my fieldwork.

As mentioned above, for tracing the socioecological effects of long-term coal mining extraction and its decay starting from the 1980s, I went to Zonguldak to conduct semi-structured interviews with retired and active coal miners, their families, municipal officers, mining engineers, mid-level bureaucrats who work in TTK, academicians, environmental activists, and local historians³. Those harsh and lamented effects are vibrantly everywhere in the city. The overwhelming sense of abandonment and decline are shared by nearly all of my informants. In their lifetimes, many of them had to face the emigration of either themselves or their loved ones to find a decent job. The migration pattern is reversed in tandem with the decrease in coal production rates; and Zonguldak is experiencing an emigration process for the first time since the second half of the 19th century. Those who have stayed and continued to work in the coal market, now find themselves even more compelling and precarious working conditions due to the structural changes in the mode of coal production⁴. Alas, as the expanding deindustrialization literature has taught us, this process does not only affect the occupational sphere but also "urban

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³ This thesis should be considered as an example of a growing interest among social scientists in Zonguldak's deindustrialization process. Since the early 2000s scholars started to trace the effects of decay in the coal industry in terms of transformation on demography (Deniz, 2014; Tüylüoğlu and Karakaş, 2006), mode and relations of production (Yılmaz, 2019), urban and social life (Ersoy, 2001; Şengül and Aytekin 2012: 154-184; Barutçu and Özdemir, 2017; Güneymen, 2009). Although I have highly benefited from these wide ranges of works (which I will extensively discuss in oncoming parts of the thesis), most of them shed light on what comes after the deindustrialization by using macro analysis and quantitative methods. However, in this thesis, I intend to question how the deindustrialization process, in and of itself, has been invented. For further discussion about that subject, one can go to the methodology part.

⁴ In her PhD thesis, Evrim Yılmaz (2019) investigates the new relations of production in the Zonguldak Coal Basin due to the neoliberal restructuring of coal industry. She claims that after the dissolution of large-scale and capital-intensive state capitalism in the coal industry, a new symbiotic form of production, which compose from state-led, subcontractor, and illegal mining operations, has gradually and relationally constructed. Her important findings remind us that deindustrialization does not automatically refer to the dissolution of work force, abandonment, or ghost towns.

cultural forms, modes of social interaction, configurations of identity and solidarity, and even the very meanings people are able to give to their own lives and fortunes" (Ferguson 1999, p, 12).

Wherever I went, I encountered with yearning stories about Zonguldak's past that mostly refer to the communal life, self-pride, and the possibility of prosperity which cannot solely be reduced to the restorative nostalgia⁵. Even though such stories tend to silence the violence and labor exploitation of the past, my informants always told me what has been lost, how it happened and how they resisted, who was responsible, and how it could have gone differently if the decision-makers have listened to them. Instead of suggesting a totalized, essentialist, and grand narrative of the past, those stories reflect upon the black box of the city's deindustrialization processes and unravel the unnatural history of the loss. So, after listening to several stories about the past events, that characterized the conditions of the present, I realized that people are more enthusiastic to tell me about how the conditions of deindustrialization are invented rather than just plainly lining the effects of it. As Ann Laura Stoler criticizes the post-colonial scholarship for disguising its lack of historicity under the blunted label of "colonial legacy" (2013, p, 7-8), people whom I spent time with also forced me to delve into the intricate and layered histories of deindustrialization. This realization enabled me to switch my attention from listing the effects one by one, with the help of taking the deindustrialization for granted, to the question of how the formation of deindustrialization is enacted by the diverse set of tools, apparatuses, and discourses.

⁵ The term restorative nostalgia, alongside with reflective nostalgia, is coined by Svetlana Boym to designate a kind of nostalgia that "characterize one's relationship to the past, to the imagined community, to home, to one's own self-perception (2001, p, 41). The term restorative nostalgia connotates the desire of reviving the lost home in a totalizing and ahistorical manner, without acknowledging its ruins, cracks, and imperfections (2001, p, 45). Whereas reflective nostalgia refers not to restoration of sacred past but dwelling and lingering "on ruins, the patina of time and history, in the dreams of another place and time" (2001, p, 41).

1.1 The purpose of the research

This kind of realization firstly hit me at a coffee house in Kilimli, one of the important mining regions of Zonguldak. In the first days of my fieldwork, Ömer, who was a former miner and my guide during the fieldwork, brought me there to conduct an interview with retired mine workers. After initial greetings with his acquaintances and family members, he organized an informal interview setting with three retired miners and one old local politician. However, the interview started with feelings of suspicion and reluctance. It seemed to me that they could not make sense of why I was there and asked about their previous working conditions. What do I want to know? Why do I want to know such things in the first place? The local politician was the one who enubilates those feelings by giving official and depersonalized information about Zonguldak's past. In the meantime, one of the miners, without interrupting the talk, approached to take my question sheet. After his quick inspection, but still, very uneasily, he started to answer the questions. Unlike the local politician, the miner oriented our attention toward the social life of the underground. Still, he did not reveal much but his memories echoed through other tables. Simultaneously, a woman stood up from the desk and asked me "What do you want to know kid?". I clumsily replied as "want to know the after-effects of deindustrialization". I cannot forget her furious laughter and despair to narrate what is not narratable. She said, "no such thesis has been written yet". And continued "They killed us. They have reduced us to nothing. In the old times, we had balls. We danced. Kings and queens had been visiting Zonguldak. But now, I have two children and even though they have jobs, still they are destitute to my retirement pension."

This thesis tries to unravel the conflictual social history which is embedded in the phrase of "they killed us, they have reduced us to nothing". The phrase, unlike the official history, media representations, and economic realities, calls out untold histories that violently affected the mining community in the region. Moreover, it explicitly denotes the unnatural characteristics of the process, by both attributing responsibility to the perpetrators and describing that process as reducing to the nothingness. On the other hand, since the 1980s, the government portrays the opposite picture, only highlighting "the economic reality and its necessities" which mostly relied on profit and loss accounts of the TTK. The new calculation methods and narrowed definition of the economy enabled the exclusion of political aspects from the configuration of deindustrialization. Therefore, by following the miners' contradictory experiences against the official narrative and reinscribing what has been excluded, I aim to demonstrate the uneven characteristics of the deindustrialization process.

Secondly, this thesis argues that the concept of deindustrialization cannot be solely regarded as an economic phenomenon. Nor does it have a single emblematic path that each geography goes through as similar structural patterns and socioecological transformations. In the International Encyclopedia of Human Geography, Pike defines the term as "the contradiction and decline of the weight of manufacturing industry within an economy" that is mostly measured by the absolute and consistent decline in terms of the total value produced by the sector and the employment rates (2020, p, 213). Although such generalizable explanations help us to comprehend the main pillars that give birth to the concept, yet the total submission to the definitions highly contains a risk to overlook regional divergence, contingent encounters, and the possibility of descriptive epistemology (Tsing 2015, p, 37-44).

On both of these points, the Zonguldak Coal Basin gives vital insights. On the one hand, the decline of the resource-based economy had disastrous social and personal consequences, altering people's perception of themselves, socialization patterns, community ties, and the reorganization of the place in the logic of new service industries, tourism opportunities, and the imaginary mega projects. On the other hand, unlike its counterparts in the Global North, Zonguldak has never experienced the total shut down of the mining pits. Even in its downsized form, the coal sector contributes approximately 25% to the regional economy and is the region's primary source of employment. However, it should be noted that the coal industry is far from providing stable jobs and favorable working and economic conditions. Instead, related to the shrinking of the coal industry, the demographic and social decline in the city is measured by statistical indicators such as population growth rate (Deniz, 2014) and life satisfaction index (Özdemir, 2017, p, 315-322). One of my informants described the current condition of the city as "a permanent vegetative state", adding "they are not killing it nor are they thriving, but totally discarded... Zonguldak has become a retirement city.". As such, I want to highlight that the concept of deindustrialization, as much as nationalism, globalization, neoliberalization, etc., does not offer a template that can be copied from one place to the next. Rather than that, in this thesis, I aim to investigate how the term deindustrialization is made through local histories, material arrangements, and political configurations.

Thirdly, this thesis engages with the concept of "the economy" and investigates its role in the making of the deindustrialization of Zonguldak. From the beginning of this process to this day, a simple calculation of profit and loss analysis paved the way for deindustrialization, providing a strong legitimation to each

subsequent government. According to this logic, deep coal mining, due to its high costs, is regarded as an unprofitable business that should not be continued as it is.

The perception of a coal miner shifted from the populist image of a proud and hardworking man to a lazy and parasitic one in the eyes of state authorities.

Meanwhile, large humiliating propaganda was woven around the slogan "the hump on the back of the nation" in the media. As a result, the Zonguldak Coal Basin, which was formerly regarded as one of the most strategic locations for the development of the national economy, started to be seen as a burden on the national economy, particularly after the 1980s.

This thesis tries to answer the following questions: What has changed? Which material and symbolic arrangements made this kind of calculation possible and legitimate? How did the authorities, willingly or unwillingly, have to orient their attention towards the loss of the company? And by doing so, how the meaning of the loss has been changed? Finally, but most crucially, which groups had to carry the burden of the suffering effects of the loss as a result of the configuration of the deindustrialization?

Overall, this thesis examines the social, political, and economic construction of deindustrialization in the Zonguldak Coal Basin. During my fieldwork, I witnessed that the history of deindustrialization, its framing, costs, after-effects, and enactments, are still highly contested to this day. If one spends a week or two in the region, it is highly possible for them to encounter a daily chat, a research project, or a seminar, discussing several scenarios on Zonguldak's future. It seems to me that, over a hundred years of capitalist exploitation, according to the simplified logic of cheap and abundant coal extraction, does not just suck the value which is created by the myriad actors, land, humans, and non-humans, but also it colonizes the temporal

future, leaving "a sense of irretrievability" (Stoler 2008, p, 202). By concentrating on a turbulent time period in which governments, unions, coal miners and their families, the inhabitants of Zonguldak, and international agencies have clashed to enact their divergent future imaginations on coal mining and Zonguldak, I intend to point out that "a sense of irretrievability" was not the destiny for Zonguldak and its inhabitants.

1.2 Methodology

This thesis utilizes ethnographic and archival research methods in order to examine the social, political, and economic construction of deindustrialization in Zonguldak since the beginning of the 1980s. At this point, I have to mention that the term ethnographic research method does not just imply going into one place, interviewing randomly selected informants, and producing the data from those interviews which consequently yield into academic results apart from the lives of lived experiences (Ingold 2014: 384). Also, it does not treat the social context as an explanatory framework that arrests the agencies of myriad actors, lived experiences, and local arrangements (Asdal and Moser, 2012). Reversely, using ethnographic methodology means a way of comprehending how those local differences, interests, and conflicts paved the way for a particular type of deindustrialization. So, I offer an ethnography of deindustrialization, investigating how it is made across divergent possibilities, imaginations, and experiences.

For this purpose, I conducted field research in Zonguldak Coal Basin. I stayed almost a month in the region, largely trying to learn about the city and its history. I met with several people, attended local seminars and protest⁶, conducted in-depth

⁶ For more details about the protest, one can go to footnote 8.

interviews, spent long hours at coffeehouses, and visited old mining neighborhoods, mining pits, mining villages, local museums, and civil society organizations. During that period, I studied to comprehend how the city planning and labor regime are formed around the coal extraction and later on how they are (re)transformed and affected the inhabitants of Zonguldak by the decline of coal production. The disappearance of coal-related factories, coal washery plants, iron rails, communal movie halls, and locals from city sight was the most visible embodiment of that transformation. So, unlike many non-native people's first visit, I did not encounter a coal city. For example, during a journey to Zonguldak in 1936, İsmail Habib Sevük (1892-1954), a literary historian of the early republican period, emphasized the conflictual difference between the city and mining with these words:

At the heart of the bazaar, a coal train passes... A dusty, smoky, boisterous coal train that can't speed owing to the crowds and constantly sounds its whistle. Is it for the city's health and beauty to remove this train? Well but, there was this train and line when the city did not exist. The miners jibbed; the mine is the most essential thing here and the city is an afterthought. They said rather than ripping the train off, go with the city. (Cited from Zaman 2012, p, 233).

During my visit, I witnessed the duality between the city and mining have been reversed and the mining became an afterthought. By taking a step further, Elif, an architect who currently works in TTK, highlights the intentional effort to eradicate the traces of coal production, deleting any characteristics of Zonguldak as a mining town⁷. Furthermore, Kamil, who is the head of ZOKEV, while agreeing on the

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⁷ During my fieldwork, I also witnessed series of debates about restructuring urban space. On the one hand, I saw banners on billboards, claiming that the municipal is protecting the industrial heritage of the town. Alongside the banners, many people told me about tourism opportunities that can be marketed around old industrial artifacts. Even, in 2016, Zonguldak's Governorship launched a project called "Üzülmez Cultural Valley" in order to functionalize the abandoned industrial buildings in the social life. On the other hand, as Ece said, there is a rush to delete those heritage inside the urban center. For example, when I was in Zonguldak, there was a local protest for protecting the destruction of the Union of Chambers of Turkish Engineer and Architects' building. As much as its historical importance (it is a place where Mustafa Kemal firstly arrived in Zonguldak), the building was used as a social place where democratic organizations can be gathered for decades. Also, at the center of the

architectural eradication of the mining past, also pointed to the loss of social life and described the city as a place where mining is no longer spoken and lively and communally experienced at the miners' bars or coffeehouses but it turned into an individualized occupation. After the end of the first phase of the fieldwork, I entirely reconfigured my research questions in order to understand how the route of deindustrialization is paved by several conflictual imaginations, policies, and configurations.

In sum, I spent around one month in the Zonguldak Coal Basin. During that period, I stayed with my friend's family, Yeşim and Ömer. Yeşim retired from *Amele Birliği*, the first social security institution of the Turkish Republic. On the other hand, Ömer was a former miner and local politician who is now trying to make their living by selling souvenir miner statues. I nearly reached out to all of my informants by using their social contacts. Each night, we gathered around the dinner table, while eating warm and delicious meals, and also pondered upon where we could go next and to whom we could speak. I cannot thank Ömer enough, every morning he woke up earlier than me, did his daily work beforehand, and took me wherever we decided to go. Throughout my fieldwork, he and his social networks guided my research.

For this thesis, I conducted in-depth interviews with 14 people, consisting of retired and active coal miners, their families, municipal officers, mining engineers, mid-level bureaucrats who work in TTK, academicians, environmental activists, and a local historian. In those interviews, I tried to investigate how the deindustrialization process started, which social and personal events happened, and how they remember those times through prompting informants' own life stories and memories. Whether organizing and/or attending the strikes, working in TTK as bureaucrats, facing the

city, there was a coal washery plant which symbolized Zonguldak as a mining city was wrecked, leaving its three dysfunctional towers. Those examples can be easily multiplied.

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policy of mandatory retirement, or witnessing the loss of communal life in general, nearly all of my informants experienced this process firsthand. Their memoirs and testimonies often transcended the boundaries of in-depth interviews and partly shifted my methodology to oral history. As I mentioned above, my informants did not just situate the deindustrialization process in the current political atmosphere, but always called for their past experiences as if something is missing for the understanding of how today's political atmosphere is made. By listening to their life stories and struggles, I felt an enormous responsibility for reinterpreting the social history of deindustrialization and its causes. It is because their perspectives and experiences are often neglected in official history. The past events that consistently pave the way for deindustrialization were not interpreted by the most affected communities but ruled by the economic necessities and its realities. So, essentially, in this thesis, I turn to the people who have been directly affected by deindustrialization and reinterpret its history by prioritizing their frustrations, imaginations, and contestations.

Alongside the interviews, I attended local seminars and protests, spent times at coffeehouses, and visited old mining neighborhoods, mining pits, mining villages, and local museums. On all my trips to each site, I had an opportunity to have informal chats with local inhabitants about the transformation of that particular site. Even, in those short chats, people were drawing otherworldly pictures full of vibrant and crowded experiences as opposed to my observations. So, in every part of the fieldwork, I was able to compose my object of research through those interactions between observation and lived experiences.

However, the fieldwork was not always an easygoing process. Most of the time, I got stuck with Ömer's social sphere and could not easily reach out to women

in order to comprehend their experiences during the deindustrialization. When I had chances to meet, my requests for an interview usually were declined with reluctance. They either directed me to someone else, always a man, "who knows better" or got depressed by the amount of their lived experiences at the past. I also realized that my research interest and interview questions did not facilitate those women to express their life stories. As time passed by in the field, I understood that the language of the research is constituted within the dominance of the male narrative. It is because, as much as I am well aware the labor regime in the region always depended on strict regulation of household labor and subsistent farming, though the mining occupation and its cultural history are formed by male workers' experiences and memories. So, when I ask about the successive effects of deindustrialization, it is not a surprising fact that those women have felt disinterested. Related to that issue, I have to assert that there is a necessity for writing the feminist history of Zonguldak for further research.

The second challenge was to understand and contextualize the stories about underground mining. Especially during my interviews with underground miners, I listened to numerous stories about working culture and conditions that took place I have never heard before. For instance, during an interview with a mine worker, he started to compare the working conditions over the motors of coal hutches. At first, I did not understand anything. After reading the transcript, I realized that he was telling me about the removal of diesel-powered coal hutches after the firedamp explosion in 1992⁸ and replaced with battery-powered motors. As a novice social

⁸ He was referring to a one of the biggest mining accidents caused by firestorm explosion in a coal mine in Kozlu, Zonguldak. 263 miners died as a result of this horrific tragedy, yet no effective investigation could be conducted afterwards. However, the "Day of Struggle against Occupational Killings" was announced on March 3, the anniversary of the 1992 Kozlu Mining Disaster, to bring attention to occupational homicides in Turkey and to underline the importance of worker health and

scientist, I was not able to easily translate this story to my research. For my sociologically educated gaze that technological replacement remains trivial since I could not include into my political analysis. It is easy to dismiss that "technical" part of the subjects in a philosophical debate. However, I was paralyzed when almost all of the underground miners were telling their stories in such a manner, enmeshing technical, social, and personal parts into each other. I found myself in a predicament as a researcher. How can I contextualize those stories and how can I learn the underground language in such a short period of time? Thanks to Ömer, he helped a lot by translating what they are trying to say. Also, I had an opportunity to visit a training field with a miner where he explained everything to me. However, I am not sure if I can accomplish to enmesh different aspects of mining in this thesis.

1.3 Unending deindustrialization

This thesis should be considered as an example of a growing interest among social scientists in Zonguldak's deindustrialization process. Although the issue of deindustrialization has been extensively studied in terms of its causes and effects in the Global North (especially in the United States, Canada, Britain, and Germany), there is a huge gap in justly conceptualizing deindustrialization in Turkey's academic sphere. When I spoke with my academic friends and professors about my topic, I observed that deindustrialization is often perceived as "coming to an end". The perception of "coming to an end" is usually derived from a cautious suspicion, doubting if I will be able to include destructive forces of capitalism, state violence, and structural inequalities in my analysis. For example, they were eager to tell me that neither the rush to coal mining nor coal consumption is decreasing in Turkey.

safety. For more information about that accident, one can watch Metin Kaya's (2008) documentary, Derin Çığlık/263.

Rather, every day we are waking up to a new decision about building a new coal thermal power plant. So, their friendly suspicion warns me what if I am misinterpreting the ongoing situation by using the term deindustrialization? What if Turkey is experiencing an accelerated and brutal form of industrialization? What if the term deindustrialization masks the capital accumulation strategies in the coal industry by just implying decay and shrinkage? What if theoretically, the concept of deindustrialization creates a distinctive time and space where the harsh effects of coal mining are only nostalgically lived, experienced, or remembered, but do not have the power to point out the current dynamics of capitalism? What if sticking too much on discussing deindustrialization, leads us to miss the latest train of globalization?

It is not my job to analyze the philosophical roots of these questions in here. Rather, taking them as valid questions, I intend to demonstrate that the concept of deindustrialization does not imply coming to an end. Even though the deindustrialization studies often orient our attention towards geographies where the factories, mills, or mining pits were totally closed, abandoned, or left to their own fate, the Zonguldak case offers another dynamic. The dynamics of the formation of deindustrialization in the basin teaches us that the politics of deindustrialization can be enacted without total removal of operations but with the reconfiguration of production. Even, a naïve person might argue that, since the 1990s, with the proliferation of privatization and illicit mining, the manner of production has been diversified, if not completely ceased, by the emergence of new coal mining sites. However, neither the complete abandonment of production nor its continuance with various regulations determines the social and economic implications of deindustrialization programs. My main takeaway from the fieldwork was the stark

visibility and pervasiveness of deindustrialization's negative repercussions in the basin. Nearly forty years have passed since the first signs of deindustrialization, the region continues to struggle with the issues of unemployment, emigration, and precarious working conditions. Despite ongoing mining operations, the decline in coal production and the rate of workforce growth has never been reversed. The politics of deindustrialization did not establish the conditions of its aftermath but a state of decay that never ends. Therefore, I avoid making a connection between the concept of deindustrialization and mine closures or abandonment throughout this thesis; rather, especially in the case of Zonguldak, the term implies a constant and consistent reconfiguration of production in the logic of profit at the expense of the intensification of exploitation.

Furthermore, I also believe that we cannot properly understand the formation and current state of the coal market in Turkey unless conducting a detailed examination of Zonguldak's deindustrialization. The process of deindustrialization opens up serious discussions about energy politics, the free market, the right to unionize, and the meanings of economics which social scientists studiously propose alternative meanings in opposition to the neoliberalization of those terms. Therefore, in this thesis, I will not exclusively investigate the impacts of deindustrialization on the working-class communities, but by using qualitative technics for this research, I aim to re-narrate how the deindustrialization is made by taking the most affected communities' perspectives and experiences into consideration. In doing so, I want to critically engage with the configuration of economic realities which became the most effective arsenal for governments in Turkey. So, this thesis conceptualizes the deindustrialization of Zonguldak not as nostalgic remembrance of the good old days,

but as a space and process where the meanings and operations of the economy have been contested, negotiated, and implemented.

1.4 The overview of chapters

In the first chapter, I will situate Zonguldak as a resource frontier of both the Ottoman Empire and Turkey which fulfilled the dreams of progress and the possibility of an independent prosperous national economy. Before delving into the process of making a resource frontier, I will analyze how and under which circumstances coal became the primary energy resource for bursting the spark of the Industrial Revolution around the world. Unlike any other energy resource up to that point, the countries that had overcome the challenges to secure and reliable coal channels held an immense volume of concentrated energy that enabled them to experience unprecedented growth in terms of population, cities, and wealth. After providing a brief overview of the social history of making coal channels, I will look at the quest for coal and its eventual discovery in Zonguldak during the Ottoman Empire. The discovery of coal in the mid-19th century irreversibly altered the physical and cultural condition of the region by the reorganization of space according to the single logic of coal extraction. So, the second part of the chapter investigates how a region is turned out into a resource frontier by several arrangements, modes of administrations, and regulations on labor regimes.

The second chapter begins with the introduction of a new method of calculating the value of coal that considers neither its contribution to the national economy nor the people whose lives have become dependent on coal production, but rather its financial burden on the government due to the state-owned company's high loss rates. Although this new method of calculation is presented as the only rational

way, which I call the neoliberal calculation, I intend to disclose its assumptions and priorities by laying out its non-essential but political history. I attribute particular importance to the invention of such formulation because it paves the way for deindustrialization with all its arrangements and apparatuses that neglect, even destroy, the social and cultural life of the miners. Its appearance as a rational path; its material conditions, and application only occurred with the implementation of several socio-technical arrangements according to the changing conditions of international relations, the role of the state, and the energy regime in Turkey. So, in the second part of the chapter, I will analyze the neoliberalization process of Turkey which provides the material, symbolic, and infrastructural configuration of deindustrialization in the basin. Overall, this chapter aims to convince that neither deindustrialization nor the economic evaluations did not originate from the given natural causes. Instead, as upcoming parts will demonstrate, they each are the products of conflictual political interests, theoretical developments, international cooperation, material readjustments of production and commerce, and redistribution of the cost.

The third chapter specifically focuses on the apparatuses and policies that paved the way for unending deindustrialization in the basin. In this chapter, I claim that the politics of deindustrialization, which have evolved over decades according to the restoration of the neoliberal order, have converged on two goals: 1) to consistently reduce the number of workers and coal production within the state company, and 2) to prepare the conditions for private enterprise by restructuring the mode of coal production. Unlike many other deindustrialized places, the basin never experienced the total closure of mines or any serious kind of abandonment. Rather, the mode and capacity of production are intentionally reconfigured in order to make

coal production into a profitable business for private sector, despite its down-sized operations and welfare of the miners. According to this logic, while the state company's operations were coming to a standstill due to disinvestment, mandatory retirement policies, and privatization of mining pits and services in the 1990s, private mining operators and illicit mining proliferated in the region. However, by presenting firsthand testimonies from the interviews, I aim to demonstrate that, instead of preventing social and economic degradation, the reconfiguration of production contributed to worsening working conditions, the elimination of social rights, and the perpetuation of unemployment and emigration.

CHAPTER 2

MAKING OF A RESOURCE FRONTIER

For more than a century now, the name Zonguldak has been synonyms with coal mining, capital of labor, and industrial hub of Turkey. Located in the south of the Black Sea coast, a few hours to both Istanbul and Ankara by car, the region is known for its large amount of hard coal deposits since the middle of the 19th century.

Despite its famous coal seams that sparked gradual imperial and national attention, exploitation of the ore always remained at unsatisfactory levels due to the twisted strata of its complex geology. Even the earlier scientific analysis reported the heavy fractures which made mining difficult and discontinuous (Quatert 2006, p, 21). Many miners whom I interviewed described the underground conditions as similar to the mountainous surface area. Behind the relatively long Black Sea shoreline, Zonguldak is surrounded by rugged mountains, hampering access to inland villages and other cities. Amongst those mountains, abundant forests rise vibrantly and engender a rich flora that extensively provides a variety of livelihoods.

Historically, anterior to the coal mining and industrial factories, the inhabitants have been made their lives through small-scale trade, subsistence agriculture, animal husbandry, forestry, fishing, and shipbuilding (Quataert 2006, p, 20; Gürboğa 2009, p, 15). By the 1800s, thanks to Ereğli's and Bartın's natural harbors, the regional economy had close ties with the Ottoman capital, Istanbul. Sailing vessels are filled up with eggs, chickens, fruits, vegetables, and wooden vessel materials, as they came back with groceries and notions (Zaman 2012, p, 22-23). However, after the large-scale coal mining operations permanently settled in the region by entirely transforming the landscape, Mübeccel Kıray observes an

emergence of the classes of local merchants and shopkeepers alongside the multiplying number of working-class communities and civil servants (1964, p, 65-92). In her anthropological study, Kıray also statistically indicates how the agricultural occupations quantitatively and radically diminished as opposed to the rising commercial and industrial opportunities (1964, p, 65). Yet, they are not disappeared altogether. Those options still seem relevant and diverse, however, their effects in terms of creating jobs, reliable income, or determining the formation of urban places according to their needs, are trivial as opposed to coal mining, industrial factories, and developing construction and service sectors.

It would not be wrong to claim that the permanent settlement of mining operations altered the very meaning of home, arrangements of capital accumulation strategies, and social hierarchies. While Zonguldak was transforming into a resource frontier, all local engagements for sustaining livelihoods were reconfigured for the sake of subsisting on the needs of the resource extraction economy. The resourcefulness of traditional forestry, subsistence agriculture, or animal husbandry either disappeared or turned into cheap resources, crucial for the material and economic existence of coal mining. The most notable and extensively debated is the role of subsistence agriculture and its functional transformation on the workers' identity formation. For many years, the labor regime of Zonguldak depended on a low-wage policy in mines without disintegrating workers' ties with subsistence agriculture. Thus, especially underground mine workers had never had a chance to fully cover their expenses without the supplementation of farm revenues (Gürboğa 2009, p, 25; and for other examples around the world, Rothstein, 1986). As is the case, many labor historians and social scientists, on the other hand, had difficulties classifying mine workers within a bounded category of a proletariat or peasant,

coming up with a solution by calling them worker-peasants. However, these debates mostly derive from the classic model of the capitalist mode of production which has tendencies to neglect how non-capitalist forms and spaces are an integral part of capitalist wealth accumulation (Tsing 2015, p, 61-73). So, for this chapter, my intentions do not evaluate what Zonguldak "is" or "is not" according to my own theoretical toolkit, rather I want to describe how the Zonguldak Coal Basin is made as a single resource frontier through a series of socio-technical assemblages for not just extracting but also enabling cheap labor and land possible.

In this chapter, by borrowing the term resource frontier from Anna Tsing's (2005) book *Friction*, I intend to analyze how the Zonguldak Coal Basin, distinctively from other regions of Turkey, is imagined and made as a resource frontier around coal mining. I allocate a large part to that discussion because I believe that it is not possible to achieve a proper understanding of the process of deindustrialization without capturing the sense of coal addiction. For that purpose, I investigate how and why coal was regarded as a primary source of energy for Turkey's national elites and which sociotechnical arrangements are applied to enact an abundant, uninterrupted, and cost-efficient supply chain. To avoid energy determinist approaches (Turnbull, 2021), it is very important to mention that without a reliable and fluid coal supply chain, coal can be merely an ornament or a deposit that does not "have a serious influence on fuel choice" (Sieferle, 2001, p. 78). That being said, I tend to reveal the actors, institutions, legal regulations, and criteria of the re-emerging coal market in the earlier Republican era. Overall, this chapter has related threefold purposes: 1) To analyze how Zonguldak is made as a resource frontier, 2) Which sociotechnical arrangements have been enacted to develop an abundant, uninterrupted, and cost-efficient supply chain, 3) To investigate the role of coal as a primary energy source in the national economy. I believe the causes and material and discursive legitimations of deindustrialization are properly understood, only by doing this compelling and historical work.

Just like many other 18th and 19th century coal towns, Zonguldak experienced incomprehensible transformations after the discovery of rich coal seams. Even one can claim that the town owes its existence to the opening of the coal mines (Quataert 2006, p, 33). Prior to the coal, the region was a part of the Ereğli district and was considered "a terrain unsuitable for human habitation" because of reeds and rushes that can cause malarial infection (Quataert, 2006, p, 33). However, coal changed everything. In a short span of time, pits, ports, railroads, coal mining administrations, small-scale operators, an imperial French coal company, migrant coal workers, mules, horses, legal regulations, and coal washery factories popped out so immensely that nowadays the town acquired a deep sense of cosmopolite legacy, arising from both violent and bureaucratic, imperial and national, and industrial and rural histories. Since the middle of the 19th century and on, state elites had a simple but persevering vision of Zonguldak: to supply abundant, uninterrupted, and costefficient coal in order to power the war fleet and state factories. Although the vision offers a clear-cut understanding, it also imagines a simplified landscape organized according to the extraction of a single resource. Other aspects of the city-building process are neglected. This situation is brilliantly summarized by one of my informants as:

The state did not develop Zonguldak purposefully. It was never intended to be developed as a city. Why? Because the coal potential beneath Zonguldak was extremely important. Look, it was very important. This coal had to be taken. Therefore, the development of this region, particularly the center district of Zonguldak as a city, was not considered in any way. How long was it not considered? It was not considered even until the 1970s. A city plan was not set up in here because urbanization was not envisaged until the 1970s. Coal would be mined there, loaded from the port here, and carried by railway;

some workers would return to their villages, while others would live in the dormitory pavilions, and a wheel would turn in this way. Originally, this basin was supposed to be a major construction site. It was designed solely for the purpose of extraction. (See Appendix B, 1).

By following the summary of my informants, I regard Zonguldak as a resource frontier of both the Ottoman Empire and subsequently the Turkish Republic. The anthropologist Anna Tsing (2005) refers to the term resource frontier in order to highlight how the extravagant capitalist accumulation is made possible by the collaboration of legitimate and illegitimate actors by confusing the normative boundaries. In the popular understanding, frontiers are usually associated with the edges of civilizations where one can find wilderness or the purest form of traditional people. However, maintaining Tsing's argument, Peluso and Lund (2011, p, 669) contradicts with that idea by persuasively denoting that "they are sites where authorities, sovereignties, and hegemonies of the recent past have been or are currently being challenged by new enclosures, territorializations, and property regimes.". Aside from reinscribing frontiers' highly conflictual status, Tsing additionally proposes a very crucial philosophical argument about the nature of resources. According to her, resources are not just discovered at some remote places and they should not be taken for granted from a distance point of view. Rather, she offers us an ethnographic vantage point to demonstrate how resources are both materially and imaginatively mold into corporate raw materials while disengaging from local ecologies (2005, p, 28-30).

Before moving on, I want to offer a brief history of coal and how its exponential usage fueled a new political power, generating "modern promises of endless growth, wealth, health, and productive control over "nature" (Boyer, 2014, p. 317). As we will see in the following sections, dependence on coal is not only Zonguldak's fate, rather it haunted Zonguldak afterward with all of its promises of

progress and development. Since the dawn of the Industrial Revolution and Steam Engine technology, the burning of coal created an energetic breakthrough both in terms of creating material wealth by providing a possibility of using energy on an exponentially different scale and influencing over the way we think. Therefore, this chapter also introduces the emerging energopolitic possibilities and limitations that exponential usage of coal created.

2.1 The predicament of coal

We are living in a new geological epoch called the Anthropocene. In the last two centuries, human activities on Earth became so dominant that the "human species" is now considered as a geological force such as tectonic shifts, volcanic eruptions, and so on (Crutzen, 2002, p. 23). Coincidentally, atmospheric chemist Paul Crutzen, who introduced the term, dates its starting point to 1784, when James Watt patented his steam engine technology and relatedly the exponential burning of coal (Bonneuil & Fressoz, 2016, p. 5). Although, the term itself is mainly criticized for disguising unequal distribution of responsibility and its effects under the vague notion of anthropos, yet I believe it urges us to reconsider the real cost of the fossil fuel age within the planetary limits of the Earth. Now, reports after reports, it is a well-established fact that coal mining is the dirtiest industry and the biggest contributor to anthropogenic climate change. The perception of coal is coupled with harsh working conditions, drastic health and environmental problems, and catastrophic futures.

Nonetheless, approximately two hundred years ago, some experts and industrial states have been cherishing coal, claiming to free themselves from the limits of the planet (Bonneuil & Fressoz, 2016, p. 18). Both the abundance of coal and its ability to create astronomical levels of energy helped to associate coal with

light, strength, power, wealth, and civilization as opposed to the darkness, weakness, poverty, and barbarism (Freese, 2003, p. 10). On the other hand, industrial states increasingly started to depend on this great volume of energy flow since the 1750s. Even in the 1860s, as a pioneer British economist, Steven Jevons (1866) anxiously warns about the possible exhaustion of coal reserves and its risks. According to him, coal was almost the sole necessary basis of British material power, civilization, and the rate of progress, so the possibility of its exhaustion must have been dealt with as a duty (Jevons, 1866, p. 1-14). Frankly, there is a vivid difference between Jevons' time and ours in terms of dependency on coal. It seems that Jevons' anxiety of exhaustion is cured by the deployment of other forms of fossil fuels, oil and natural gas, and nuclear power. Yet, it is also for sure that we both inherited some material and intellectual legacies as much as ecological constraints from the Coal Age. But how did it start? How did coal become the necessary basis of material power, civilization, and the rate of progress?

2.2 Invention of the coal age

Essentially, coal is an organic sedimentary rock composed of highly concentrated stores of buried solar energy, as an altered plant deposit (Kömür Atlası, 2017, p.12). Its early formation started over 250 million years ago during the Carboniferous era up to 60 million years when the vast accumulation of dead plant matter decayed under the oxygen deficit watery environment. Unable to decompose and rot because of the oxygen deficiency, those plant debris are squeezed even more by toppling other plants over thousands of years and transformed into peat. If that burial continues after the formation of peat bogs, the lowest quality of coal, lignite, begins to form thanks to the increasing pressure and heat. Lignite coal, or brown coal, is

primarily known for its low heat content, calories, widely distributed reserves all over the world, and it is usually used for powering power plants. In the case of high-quality coal, anthracite coal is much older than lignite, has higher carbon content and energy density, and is mainly used in the metallurgy sector. So, even just considering the formation of the coal, we can easily claim that the exploitation of coal is not restricted to the exploitation of human and animal labor, but also extends the million years of bio-geologic work of non-human actors as well.

Therefore, all fossil fuels should be considered as the non-reproducible accumulated wealth of vast forces rather than a merely given resource. For example, Sieferle (2001, p. 42) estimates the annual consumption of 10 billion tons of fossil fuels as equal to 500,000 years of stored deposits. In contrast to the other renewable sources, he defines fossil fuels as "a one-time-only bank of stored energy" (Sieferle, 2001, p. 42). As mentioned above, this precarious condition of carbon reserves is a well-known fact since the early 19th century. For energy experts and markets, the abundance of reserves always brings out more serious problems of scarcity. And to look at how did these antinomies intertwine with each other; we should delve more into the social history of coal.

Coal was not abruptly discovered in the 1700s. Its existence was already known in ancient times. On the other hand, as Sieferle asserts its exploitation remained on a limited scale, mostly used for raw materials such as ornaments, jewelry, boxes, and inkwells (2001, p. 79-80). Though, its usage as fuel was more sporadic and regionally restricted (Sieferle 2001, p. 78). Instead, humans acquired their needs for energy and fuel respectively from the sun and wood (Mitchell, 2011, p. 12; Sieferle 2001, p. 79). Even with its already known existence, scholars propose various reasons for not immediate transition to coal. Discovery and mere knowledge

are inert if they are not entangled with socio-technical arrangements that put inertness in action. By looking at the obstacles in front of the immediate transition, I believe the importance of those arrangements will be clearer.

According to Sieferle (2001, p. 78-137), coal did not play a crucial role in fuel choice for Greeks and Romans, because of the geographic location and logistical problems of the deposits. At that time, most known coal seams were on the peripheries of those societies and there were no suitable transportation routes for heavy materials. Sieferle rightfully writes "the mere existence of a resource, oil or coal, is inconsequential if it cannot be used" (2001, p. 42), and in order to make it relevant, he stipulates the emergence of reliable and energy-efficient transportation routes. Similarly, Barbara Freese (2003) and Bruce Podondik (2006) also highlight the importance of reducing transportation costs on behalf of the consumers in England, London. In this respect, thanks to the developments in navigation technology, both Sieferle (2001, p. 81) and Freese (2003, p. 22) claim that there was an occurrence of coal market along the line between Newcastle and London, which have helped coal to replace wood.

The second challenge for transitioning came from destabilized underground conditions. As Mitchell (2011, p. 13) denotes mines were tended to fill with groundwater and that watery environment posed serious problems for extracting the exponential rates of coal. In order to dry the deeper pits out, excessive numbers of animals and people had to work (Pomeranz, 2000, p.52). However, according to Mitchell, this created a disbalance between the consumed energy for keeping the mines dry and the obtained energy from mining material. In the early 18th century, this disbalance was reconfigured by a series of inventions on the steam engine (2011, p. 13). Only after the invention of the efficient and coal-burning steam engines,

which enabled the replacement of animals and pumped out the water swiftly, the rates of coal extraction expanded to feed the manufacturing industry.

The third was about social and economic challenges which not only effected British mines but Zonguldak as well. At the beginning of deep mining operations, miners had a series of difficulties finding laborers because of its notoriously harsh and deadly working conditions. In Britain, Podondik states that mine owners surpassed that labor deficit by the ongoing transformation of rural lands. According to his thesis, the enclosure movements in the rural areas forced peasants to migrate to other places to find stable jobs. Zonguldak also went through a similar labor deficit. During both in Ottoman and Republican periods, governments and mine owners failed to solve the labor supply problem in the basin (Gürboğa, 2009, p. 60-61). In the earlier decades, villagers did not voluntarily go into the mines, favoring agricultural activity over the unhealthy and dangerous working conditions in the mines (Gürboğa, 2009, p. 61). So, subsequent governments applied different legal and coercive instruments, from compulsory labor regimes to protective regulations, to supply the necessary labor force.

Up to this fourth point, I discuss a set of challenges in front of energy transition mainly from wood to coal. By laying out several social, geographic, and logistic obstacles, I intend to claim that the transition to coal was neither an immediate process nor the mere product of technological advancements. Maybe, it is ideally right to claim that coal enabled an unprecedented quantity and concentration of nominal energy as opposed to the other renewable sources; however, as Sieferle puts the mere existence of this fact is inconsequential, if it cannot be used (2001, p. 42). In order to switch to the coal regime, it requires earthly transformations of mining pits, a set of new legal and coercive arrangements, and management of the

economies. From the beginnings of the Coal Age, there was also a problem of suppliance on raw materials. In Britain, the annual coal production skyrocketed to 10 million tons in a very short span of time (Sieferle, 2001, p. 39), yet this exponential amount of energy had to be supported by huge amounts of raw materials for manufacturing, food supplies for the industrial workforce, and reliable consumer markets. At this point, historian Kenneth Pomeranz (2000) underlines the importance of colonial territories on expanding industrialization and the industrial economy. According to him, although coal provided several breakthroughs from physical and ecological constraints, it was not enough without the reorganization of colonies to cheaply exploit their land-and-labor-intensive goods and to create a consumer market for British products (Pomeranz, 2000, p. 263). In that period of time, the colonial arrangements allowed the flow of industrial and agricultural goods (cotton and sugar are epitomes of those arrangements of production), which secured the development of industrial mass production in Britain and Europe as well (Mitchell, 2011, p. 17). Subsequently, those industrial products reversely flowed to the colonial markets and provided a significant amount of wealth, as destructing local modes of production (Bhambra, 2105, p. 137-159).

2.3 Focusing on not coal but abundant, uninterrupted, and cost-efficient coal channels

The brief overview of the challenges that coal faced gives important insights. The most important one is to say that coal itself means nothing unless there is a secured and reliable supply chain. In most of the analyses, coal is automatically regarded as a source of wealth, forgetting the historical challenges and transformations which engender a specific form of the energy supply chain. However, rich coal reserves

without sufficient and cheap labor can be economically unviable as much as an abundance of extracted coal without any railways and docks can be rot to death, failing to reach industrial factories. Although sometimes the short-cut assumptions seem to represent the truth as it is, most of the time they hide even more.

Furthermore, studying not just coal but also the organization of the coal supply reveals more about the earlier history of industrialization and our dependence on fossil fuels in general. There is a strong tendency that tries to equate Industrial Revolution with Britain's extensive coal reserves and steam engine technology.

Maybe, those factors cannot be disclaimed, and yet their equation can be questioned.

As we saw in the previous section, the existence of coal reserves is widely known around the world since antiquity. However, its usage remained mostly regional until the constitution of the abundant, uninterrupted, and cost-efficient coal chains. Constituting those channels did not happen at once after the miraculous invention of the steam engine. Yes, the developments in steam engine technology helped to exponentially increase the production and consumption rates. However, it would be meaningless without the transformations in transportation, social life, colonial territories. Even when Jevons wrote about the possible exhaustion of coal reserves, he was offering the "economy of power" which is about the prudent and efficient management of the coal reserves (Mitchell, 2011, p. 127). As such, the scope of that management extends the limits of technological improvements.

Although he highly hopes for further developments in steam engine technology, he also considers labor management, expanding branches of industrial production, new economic inventions, and international trade (Jevons, 1866, p.122-137).

In his marvelous book *Carbon Democracy*, Timothy Mitchell (2011) investigates the intertwined relationship between modern democracy and fossil fuels.

He does not regard them as two separated entities rather he tries to demonstrate how democratic politics arose or was suppressed in the dots of fossil fuel channels by focusing on the organization of different kinds of energy supplies in world history (2011). For instance, the transformation from solar-based energy to coal created the flow of a great volume of concentrated energy along narrow and purpose-built channels (2011, p. 19). While industrial countries were experiencing unprecedented growths in terms of population, cities, and wealth, the same coal channels also became their Achilles' heel. Working class members who occupied strategic positions at coal channels gained to forge new political agency by slowing, disrupting, or cutting the supply of coal (2011, p. 19-27). In the industrialized countries, workers were able to gain many democratic rights such as the right to vote, the right to form unions, the right to an eight-hour day, to social insurance programs by interrupting the flow of coal (2011, p. 25). So, Mitchell's work is an excellent example of how to study the energy systems in relation to political power. He does not automatically correlate coal with wealth, power, civilization. Rather, he unravels that correlation by looking at how abundant, uninterrupted, and cost-efficient coal channels are built through several socio-technical controversies.

2.4 Ottomans searching for coal

The beginning of the 19th century marks an important shift in the world economy. The Western European countries, especially Britain's leadership, were able to extensively transform their economic infrastructures since the 18th century. During those times, while the manufacturing industries were becoming mass producers, the advent of railroads and steamships provided secure transportation of both the raw materials to the factories and end-products to the overseas markets at an

unprecedented speed. Relying on the flow of abundant and cheap coal from the mines, the term world economy arose from the new criteria of growth such as European expansionism, overseas commodity trade, and global capital accumulation. In the meantime, the European countries and capitalists started to expand their relationship and influence with other parts of the world via new waves of colonial invasions, free trade agreements, commerce, and capital exportations. Especially aside from formal colonies, each of those specific forms of interactions is diverged according to the interplay between the imperial and local interests. Those economic relations are not constituted unilaterally, rather the Europeans were able to get several concessions from central governments by meeting their short-term requirements.

The 19th century Ottoman economy provides an excellent example of a bilateral relationship between European countries and capital and the Ottoman central government. In most analyses, the Ottoman Empire is stereotypically represented either as an all-powerful central government or as a sick man handicapped by the external westernizing programs (Quataert, 2006, p. 2-5). However, throughout the 19th century, as Pamuk (1987; 2007) argues Ottoman Empire tried to reassure its central authority, military power, and economy by importing European investments and technology, while constantly struggling to limit European influence on its territory. In the midst of balancing those complex interests, the Ottoman economy and military gradually became more dependent on foreign coal-based technology, investments, and infrastructure. On the one hand, railroad constructions reduced the transportation costs of agricultural goods for export to mostly European countries (Pamuk, 1987, p. 70). On the other hand, since the 1828, the Ottoman navy started to buy steamships to empower its military force (Ekinci,

2006, p. 46; Zaman, 2012, p. 42). Although those large-scale investments have helped to restore the central government's authority as opposed to provincial *ayans* in the second half of the 19th century, the cost of re-centralization of power would be the dissolution of control over the economy.

The Ottoman Empire could not find economic relief from its transactions with European countries. Whether buying new steamships, constructing railroads, or expanding its foreign trade did not allow the expected fiscal strength. Rather, they returned as more expenses, debt, importation, and dependence on the European capital. During this particular period, Sultan 2. Mahmud enacted an imperial order to find good quality coal reserves within the borders of the Empire (Qataert, 2017, p. 83). Before the 1820s, the Ottoman Empire did not have an interest in coal mining due to its lack of industrial production (Quataert, 2017, p. 91). However, the ongoing transformations in the 19th century led the central government to supply its military force with the flow of abundant and uninterrupted coal, even in wartimes. Although the coal trade did not offer promising wealth accumulation because of the relatively low demands, it started to gain strategic importance for fueling the war fleets, carrying the soldiers from remote places with railroads, and also powering the state factories. So, the central government highly required independent coal channels from foreign control, as it was transforming its military and transportation base into coalbased technologies and infrastructures. In 1829, the imperial order gave its fruits in Ereğli where the Ottoman Empire lastly found promisingly rich coal reserves.

2.5 Zonguldak as a resource frontier

Nowadays, Zonguldak's hard coal reserves are far from sparking either economic or strategic attention in Turkey. Basically, they fail almost every scientific evaluation as economically viable reserves. In the meantime, the Turkish Hard Coal Institution continues to measure current coal reserves exceedingly over one billion tons.

Nevertheless, both the production rates and the number of workers are constantly decreasing since the 1980s, even the existing reserves. One of my informants complained about there is not any proper production policy and continued:

Right now, they are trying to save the day. As long as you can't offer something to people socioeconomically, it is keeping you busy, even if it is lame. It merely stalls, though. They have nothing to offer people in terms of developing alternative paths that will allow them to work in other fields. In other words, if the company currently employs three workers, it will employ four during the election periods. The company will then retire as many workers as it hired in the six months following the election. We've arrived to the same point yet again. Nothing is changing. In here, the largest recruitment occurred when 3000 employees were hired, while 2500 people left the company the same year. (Appendix B, 2).

There are many reasons behind that political and economic logic which I will discuss next chapter. However, what I want to underline here is the radical difference between the earlier and current coal politics. Over the centuries, the Zonguldak Coal Basin is imaginatively and materially regarded as a primary resource frontier of both the Ottoman Empire and Turkey. Although there is a heated debate among historians regarding the exact date of the beginning of mining operations, they agree on the time period between 1829-1848. Despite its uncertainty, since the discovery of coal reserves, Zonguldak experienced incomprehensible transformations.

Formerly a site of reeds, rushes, and a small wooden dock, the town of Zonguldak was a district of Ereğli. As with the discovery of the promisingly rich coal reserves, it is highly regulated in accordance with Ottoman Empire's needs, mainly for powering war fleets and state factories. From that point on, the basin became a resource frontier that applied several and varying types of relations of production, legislative acts, administration strategies, infrastructure constructions, labor recruitment methods, and market regulations to enact an abundant, uninterrupted, and

cheap coal chains, even in war times. This series of struggles show us the particular importance of the basin. No singular form of capital nor a single mode of production could imprint its logic on operational strategies. Rather, the coal basin appeared from the interplay between contesting interests and plannings, public and private ownerships, failures and concessions, violence and law. Altogether, the geography turned into a production site, disengaging from local ways of knowing and practicing, where state elites and capital fuel their progressive imaginations.

The Ottoman Empire did not face any local adversity for land's legal status. The property of the land, as its *miri* status (state-owned public property), was already in the hands of the Empire (Quatert, 2006, p. 39). During the early periods (1848-1865), the legal administration of the coalfield was the Privy Purse (*Hazine-i Hassa*) which is responsible for controlling the mining licenses to operators and the revenues of the mines (Eldem, 1994, p. 47). Under this system, even though the mine operators could not own the property of mines, they were able to purchase mining licenses in return for an annual payment (Gürboğa, 2009, p. 59). Labor historian Atilla Aytekin (2007) describes that the conditions of production operated rather primitively, without having any remarkable technology investments. The mine operators focused much more on their short-term profit than the Empire's strategic need for coal. Therefore, at that time while the operators were fulfilling their pockets using primitive techniques with low production levels, the Ottoman Empire could not reach its primary purpose to enact a reliable supply chain.

In 1865, Naval Ministry took the charge of the basin from Privy Purse.

Through this transfer of administration, the central government hoped to strictly regulate the production, market, material supplies for the mines, and the labor deficit by establishing military order in the basin (Gürboğa, 2009, p. 60). Unable to provide

large-scale industrial equipment to enlarge the production due to its growing fiscal deficits, the government oriented its attention toward military solutions. In 1867, the official regulatory document of the Ereğli Imperial Mines Regulation (known as Dilaver Pasha Regulations, taking its name from Dilaver Pasha who was the superintendent and chief administration of that time) was published for mainly assuring the coal supply chain. The document primarily brought new legislative rules on the labor regime. Since that time, the labor deficit was a serious problem for both mine operators and administrations. The villagers did not voluntarily enter the mines, abstaining from the difficult and dangerous underground conditions. On the contrary, they continued to rely on agricultural income and went to pits only seasonally if they needed a supplementary income (Gürboğa, 2009, p. 61). Before the Dilaver Pasha Regulations, the operators could form a debt-bondage system with the villagers who could not pay their taxes, however, its scope remained limited (Kahveci, 2015, p. 719-720; Aytekin, 2007, p. 29-30). Also, the supply of skilled quarry workers has been met with the employment of Croat and Montenegrins workers (Quataert, 2006, p. 54). Yet, that disorganized labor regime was far from covering the increasing needs for coal. For that purpose, the regulation enacted a compulsory work regime for the villagers in the fourteen districts of Ereğli (Gürboğa, 2009, p. 61). According to this regime, villagers had to work as rotationally, staying twelve days at mines, twelve days in their villages, and three days would be spent on transportation in each direction (Quataert, 2006, p. 41). The labor recruitment process is strongly organized by the cooperation between local headmen and military officials in the basin.

The second outcome of the regulation was the monopolization of the coal market by direct state intervention (Quataert, 2006, p. 41). Especially during the Crimean War (1854-1856), the Ottoman Empire had to live with the burdening

effects of insufficient coal supply by importing coal from Britain (Genç, 2007, p. 33-34). In fact, at that time, a British company temporarily took over the authority of the basin's administration in order to supply coal to foreign warships in the Black Sea (Quataert, 2006, p. 39). So, after the war, the Empire needed to strictly regulate the coal market in accordance with its primary goal; to provide the flow of an uninterrupted coal supply, even in war times. If the one aspect was to control the supply of cheap labor, the other one was determining the sale price and the buyer beforehand. The mine operators were still in charge of the extraction of the coal but they had to sell all the coal at a fixed price to the Navy. On the other hand, the administration also undertook the responsibility for constructing the necessary infrastructure, especially concentrating on the ways to move the coal from mines and to the ships (Quataert, 2006, p. 42).

The embedded production chains of the basin were always tested during the war times, particularly for the central government. By the 1830s, Ottoman war fleets were transitioning into steam power, yet industrial production remained evenly in the Empire. So, especially for Istanbul elites, the importance of the uninterrupted flow of Zonguldak coal became a vital issue, mostly because foreign supplies fell into jeopardy in wars (Quataert, 2006, p. 206). In 1877, when Ottoman-Russian War erupted, the supply chain that was both coercively weaved by the Navy's administration and private entrepreneurship is halted. The production rates immediately fell from 142.000 tons to 56.000 between 1877-1880 (Aytekin, 2007, p. 30). The food and material shortages stroke the basin as well as the total workforce, both humans and animals, is dissolved immensely by several reasons such as death, logistic problems, labor stoppages, desertions, etc. (for more information Quataert, 2006, p. 206-223). Furthermore, the Naval Ministry could not pay its debts to the

operators, as a sole buyer in that strictly regulated market (Gürboğa, 2009, p. 63). At that time, the government owed nearly all of the operators which entirely risked for the sake of the production (Quataert, 2017, p.85). After the war, by taking the advantage of this situation, the mine operators put pressure on the government to obtain the right to sell their coal in free market conditions. In 1882, the government reluctantly had to grant a right to the operators to freely sell 40 percent of their coal, hoping to accelerate the production rates (Quataert, 2006, p. 42-43). Although the government was partially abandoning its central role in the market, at least it profited from the changing conditions. The new private capital entered to exploit the coalfield and as it is expected, the production rates increased drastically with the reorganization of the market (Quataert, 2017, p. 87). However, the government's discontent about the emergence of a proper and reliable supply chain did not prevail. According to an administration report, the mines were still operated with primitive technics, without any experts and knowledge of scientific and systematic mining practices (Quataert, 2017, 88). Moreover, the report complained about the lack of large-scale infrastructures such as railroads and proper port facilities which also prevented the spreading of the mining operations. The government had no budget to support these large-scale investments, so the lack of infrastructure obliged the government to make another concession, more reluctant than the previous, to a French Company, the Societe d'Heraclee (Ereğli Company).

As the biggest single venture of foreign capital in the Ottoman Empire, the French Company arrived in the basin in the 1890s. Prior to that, the central government had already been negotiated with another French company for operating the mines. Yet, it is declined by the same government, citing a risk that foreigners may interfere in internal affairs. Instead, the government elites tried to find a solution

by redefining the market conditions. The introduction of free-market sales attracted the private entrepreneurs who saw a chance to make profits on cheap workforce and coal but neither the private capital nor the public budget had enough money to build the necessary infrastructures. The coal chain was defectively held together by the mixture of military despotism, low-wage policies, and the surplus of agricultural revenues. In this context, the French Company entered and quickly became influential with its giant amount of capital. In addition to the operation licenses, the Company also obtained the right for constructing ports, a quay, railroads, two coal washing factories, a repair workshop, and a coke and briquette factory (Gürboğa, 2009, p. 64). The government could have enjoyed from these circumstances, after all these investments quadrupled the production in ten years and for the first time it seemed that the authorities were achieving their goals of the uninterrupted coal supply (Quataert, 2017, p. 93). However, on the other hand, the same authorities were also anxious about the company's increasing monopoly over the basin. In a short amount of time, by absorbing other pits, the company became responsible for 79 percent of production in 1902 (Aytekin, 2007, p. 33). So, the government had to release its coal hunger for a bit and worked against the company's interests by supporting Muslim operators and introducing new legislation to cancel the foreigners' mining licenses (Quataert, 2017, 94). Although the French Company was able to maintain its operations up until 1937, its capital, profits, and relatedly its investments decreased continually.

Overall, since the discovery of promisingly rich coal seams, the central government attributed strategic importance to the Zonguldak basin for fueling its imperial and military dreams. However, as mentioned above, the discovery of the resource did not mean very much, unless the existence of several socio-technical

arrangements to extract, carry, transport, and consume the coal. From the very beginning, the government sought to enact an uninterrupted supply chain that is independent of foreign control, especially in war times. For this purpose, the basin is imaginatively and materially disengaged from local needs and reorganized according to the military needs. Throughout the process, the basin experienced the conflictual actions of different actors, administrations, and forms of capital that pursued their own interests but sometimes even the most powerful authority had to make concessions for the sake of reliable coal channels. Meanwhile, the meaning and functions of geographical space, the local inhabitants, animals, villages, forests, and coal seams are reformulated according to the logic of resource extraction. Yet, the reformulation itself carried no essential logic. In Ottoman historiography, the periodization of history carries an important ideological burden. For example, by refusing the state-centered order of chronology, historian Quataert (2006, p. 16) put forward the date of 1882 as a turning point for the basin when the government had to permit free sales of coal. However, his periodization also implicitly connotes another set of logic between free market vs state-controlled market, capitalism vs noncapitalist economies, and industrialization vs feudalism. In the case of Zonguldak Coal Basin, such theoretical dichotomies seem to have no explanatory power. It is because even the year of 1882 marks a crucial touchstone, yet neither the coal market nor the basin could be considered free from government intervention. Still, the mining operators had to sell 60 percent of their coal to their biggest buyer, the Navy, at a fixed price. In addition to that, although the production rates increased with the entry of big capitals in the first years of regulation, the approximate rates could not be sustained and the government had to allow the entry of the French Company. Also, throughout the Naval Ministry's administration, the necessary workforce is

supplied and institutionalized by a rotational work regime that does not fit into the proper categories of the free market. These contesting examples can be easily multiplied because there is no single logic, interest, success/failures, theory, or framework that can explain the process of making a frontier. Rather, as Anna Tsing (2005, p, 33) states the process of making frontier contains ironic twists:

Planned communities lead to unplanned settlement; resource nationalization leads to private control; land titling leads to forgery; military protection leads to generalized violence. Such twists are more than irony: They predict and perform their own reversals, forming productive confusions and becoming models for other frontiers... The frontier is made in the shifting terrain between legality and illegality, public and private ownership, brutal rape and passionate charisma, ethnic collaboration and hostility, violence and law, restoration and extermination.

Yet, the success is not guaranteed beforehand. The Ottoman government had a dream to fuel its military and imperial needs. Therefore, since the beginning, the authorities tried to construct smoothly flowing coal chains, especially in war times. Even, in the initial decades, the authorities did not care about the economic cost of the extraction but only focused on the enactment of an uninterrupted supply chain. Despite its all efforts and concessions, the chain mostly stayed vulnerable to break from every part of the production. Coercive military methods did not provide a reliable and permanent workforce in the basin. Also, the several regulations did not attract the necessary capital to invest in scientific mining, technological advancements, and infrastructure. When the government had to allow the French Company to operate in the basin, its developing monopoly scared the authorities and they started to work against the company for reaffirming its authority within its borders. As a result, the coal chain was devastated in every war. Apart from the war times, the chain also remained mostly unsatisfactory; briefly an insufficient, discontinuous, and not-profitable coal chain. Similarly focusing on the coal channels and also workers' ability to derive power by disrupting those channels, Timothy

Mitchell (2011, p. 21) writes about the Zonguldak coalfield that "without the linkages that connected coal to large centers of industrial production within the country, these actions could not have paralyzed local energy systems and gained the political force they enjoyed in northern Europe and the United States". However, these unsuccessful attempts did not prevent the complete transformation of the basin. Instead, by redefining the meaning of strategic importance, the freshly established Republic attributed even more importance to the basin.

2.6 Strategic importance of coal: From fueling the war industry to the national economy

If the Ottoman Empire required abundant, uninterrupted, and cost-efficient coal chains for fueling the war industry to restore its imperial power on a world scale, the early Republic sought the flow of coal to invent the material foundation of the national economy. The former coal strategy channeled for military defense of territory, however, the latter's relied on making an autonomous national economy. The signals of this transformation can be followed in the words of Mustafa Kemal as saying:

No matter how great the political and military victories are, if they are not crowned with economic successes, the victories are certain to fail and fade away within a short time. If we are to maintain the success of our victory, our economy should develop and our economic independence must be ensured. The new Turkish State will be an economic state... The new Turkish State will not establish its foundations with a bayonet, but with the economy on which even the bayonet is based on." (Cited from Zaman, 2004, p. 78).

In the eyes of the state elites, coal is regarded as a fortune that would revive all nations (Zaman, 2004, p. 100). So, the importance of controlling and administering the Zonguldak coalfield and coal channels expanded as much as sustaining the economic needs of the freshly established nation-state. In order to meet those

expenses, the government applied several strategies over time, consisting of the nationalization of the mines, creating an industrial hub around the coalfield, and implementing social policies to sustain a reliable workforce. Therefore, at those times, the value of coal and the scope of large-scale investments in the field are not determined by its sole profitability rather its potential to fuel the national economy.

The early Republic inherited a weak web of connections between internal parts of the country from the Ottoman Empire. Although some metropoles, such as Istanbul, Izmir, and Thessaloniki, have been able to develop commercial ties with other parts of the world throughout the 19th century, those ties could not expand through internal parts where agricultural goods are mostly produced. Strikingly, Korkut Boratav (2019, p. 30) states that at the beginning of the 20th century wheat importation from Europe or the United States cost 75 percent cheaper than buying from Anatolian wheat due to its high transportation costs. However, the subsequent world wars and economic crises obliged the government to rethink the invention of a self-sufficient national economy, especially after experiencing the devastating effects of the interruption of global supply chains. In the 1930s, the Turkish state tried to embody the ideals of a protective national economy by the sheer construction of railways and boosting industrial production. Between 1923-1940, the railway network escalated from 4018 kilometers to 7500 kilometers (Özeken, 1955, 53). The emergence of railways interconnection for industrial interests also yielded a rise in the number of carried workers, animals, and goods to the industrial factories (for the exact numbers Özeken, 1955, 55). However, the etatist industrial policies required an even more stable and abundant flow of coal. Therefore, the Zonguldak coalfield and its organization became a prominent factor for early industrialization attempts and national economic growth.

In fact, the etatism as a particular form of capitalist accumulation had intellectual roots in the mid-19th century among the Ottoman elites (Boratav, 1982). Opposing to the liberal economic model, the main principle of the etatist arguments was the direct government interventions and subsidies in order to encourage the development of the industry through a series of regulations and governmental institutions (Boratav, 2019, p. 30). Additionally, in the case of the Turkish Republic, the etatist policies also have worked for creating the class of national bourgeois. According to the defenders of etatism, the state's active role in governing the economic conditions of a country would be necessary for further development and modernization of the nation. By not just seeking financial profits, the state would provide cheap material inputs for industrial production and national capitalists. İsmet İnönü (2004, p, 602), one of the founding figures and a true believer of the etatism, explained the difference between private and public enterprises as:

The state railways now transport commodities at such a low cost in some regions and for particular crops that they are unable to pay the costs of coal they burn. Is there any possibility for a railway operator who is not owned by the state to take such a measure? With these instances, I explain the most important claim against statism: The claim that private institutions are always work profitably and state institutions are always expensive and costly. In many circumstances, the State will not make profits like a free trader while taking measures for the benefit of the entire country, such as not considering the cost of coal it burns or the revenues of its companies. What is more natural than that? And anyway, the greatest benefit of statism for the country can only be explained by the fact that it is possible to take such courageous measures in some circumstances.

Basically, this short passage demonstrates that İnönü considered public enterprises as courageous initiatives that have the power to act without calculating their own pockets. The state-owned enterprises were able to measure the profit and loss account differently than their counterparts, so the existence of financial losses would not hinder further investments. Especially, after the 1929 Great Depression, the etatist industrialization model prevailed over liberal developmentalism and the

number of workforces skyrocketed within the state-owned enterprises (for more details Makal, 2018, p. 118-119). In this way, the freshly established Turkish state would accelerate the rate of industrialization without losing its control over private capital as well as averting the class struggle. By blending etatist policies with corporatist ideology, the state elites imagined a classless society, preventing any form of confrontation between the labor and capital (Yıldırım, 2017, p. 45-46). However, those imaginations conflicted with harsh realities and the burden of the etatist industrialization laid on the villagers and workers (Boratav, 2019, p. 86-87).

In this context, the existence of an uninterrupted coal supply became one of the essential factors for the etatist industrialization. Coal is regarded as more than a mere raw material to fuel the war industry, but is a material necessity to achieve independence and civilization (Yılmaz 2019, p. 82). In the 1937 opening speech of parliament, Mustafa Kemal said "coal is a fortune that revives entire Turkey" and continued to explain the necessity of rational and planned production programs (Cited from Zaman, 2004, p. 100). Similarly, in the book Coal History of Turkey, Ahmet Ali Özeken (1955) also investigates how and why coal production became the national cause within the national economy. He states that the national coal production cause gradually and irreversibly situated in the national economy by the legal, administrative, and economic developments both in the basin and Turkey. According to him, while the national railway policies and industrial development projects were constituting and developing the national economy in the late 1930s, the existence of coal supply chains became the main input of the economy (1955, p. 46). So, the rational organization of the Zonguldak coalfield was a vital issue for sustaining the growth of the national economy.

2.7 Zonguldak in the republican period

At the end of the 19th century, the Zonguldak Coal Basin has already been in operation for more than fifty years. As the only site of hard coal reserves in Turkey, the basin attracted special forms of legislative, military, and administrative arrangements to fuel the divergent conflictual interests. Over the course of 19th century, despite the lack of a flawless coal chain, the basin's fate, its past, and future are irrevocably tied with industrial coal extraction. The singular objective of making abundant, uninterrupted, and cost-efficient coal chains arose from the contesting strategies amongst the state, military, villagers, local bureaucrats, and national and foreign capitals. When the Turkish Republic was established, monitoring of the basin from a central authority grew even more. On the other hand, the early Republican government was not able to improve the conditions of the miners. Fatal occupational accidents, primitive working conditions, and the problems of irregular payments were still common occurrences in the basin (Şengül and Aytekin, 2012 p. 166). Even that, due to the ongoing chronic labor shortage, one more time the mine workers had to experience a compulsory work regime during the Second World War. So, the characteristics of the Zonguldak Coal Basin as a resource frontier have not been disrupted by the Republican era, rather it is more concentrated according to fulfill the developmental dreams of the governments.

Throughout the 1930s, the Zonguldak Coal Basin undergo three major transformations: the nationalization of the basin's capital, the development of new industrial enterprises, and the implementation of social policies to address the labor shortage. Especially after the First and Second Five-Year Industrial Plans, the Zonguldak hard coal is regarded as a primary raw material to fuel the emerging steel, iron, and chemical industries alongside maritime and railway transportation. In that

regard, the government brought up several foreign experts to investigate the possibilities of establishing new industrial branches in Turkey (Gürboğa, 2009, 88). The outcomes of those reports suggested the Zonguldak Basin as the best location to establish iron, steel, and chemical industries because of its rich coking coal reserves and the possible labor force that can be obtained around the villages. In line with those reports and new economic objectives, the Industrial Plans also envisaged a structural transformation of the coalfield for reducing the production and transportation costs of coal. However, between 1925-1934, the amalgam of national and foreign large-scale capital in the basin could have been able to create extraordinary profitable conditions for themselves. By eliminating small scale enterprises, four companies dominated the coal sector which started to contradict with the state's coal policy (Gürboğa, 2009, p. 87). In this context, the Five-Year Industrial Plans also signaled the earlier nationalization attempts over the basin. While the state elites and experts were trying to find fruitful solutions to enact the coal supply for etatist industrialization through legal and institutional arrangements, the nationalization of the basin under state ownership appeared as a magic wand to resolve all problems, favoring the central state's necessities. So, in May 1940, at the dawn of World War 2, the full nationalization of the basin is enacted by the law of the Ereğli Havzasındaki Ocakların İşletilmesi Hakkındaki Kanun and from that point on the management of the basin transferred to the Ereğli Coals Enterprise, as the establishment of the Etibank.

The entry of the French Company became only possible of its undeniable commitment to increase coal production through large-scale infrastructure investments. As the outcome of those investments, the production rates increased significantly in the basin and related to that the company gained the power to

eliminate its rivalry capitals. As time went by, the scope of investments is restricted mostly within the industrial factories, railways, and ports, although the mechanization of production remained very limited. Nursen Gürboğa (2009, p. 120) explains this situation through the dominance of low wage economy in the basin. According to her, the mining operators preferred to maintain the migratory work patterns, without investing either in mechanization or in social services, as long as they could overcome the labor supply (Gürboğa, 2009, 120-124). Although the migratory work patterns and the lack of social services and mechanization could not allow the expected growth in productivity, yet it is purposefully maintained for decreasing the production costs. Primarily, subsistence agriculture helped to form low wage policy in the basin by reducing the cost of reproduction of labor; and the operators profited even more from maintaining the heavy reliance on manual labor with low wages as opposed to high costs of mechanization (Yılmaz, 2019, 81).

However, in the midst of seeking profitable business and low productivity rates, the labor shortage became a chronic problem in the basin. To compensate for the shortages, in different time periods, both Ottoman and Republican governments had to apply a compulsory work regime by strictly regulating the labor recruitment process in the villages through the cooperation between military forces and local bureaucrats. Apart from these periods, the Turkish state paid particular importance on creating qualified and permanent workers due to the necessity of increasing productivity (Yıldırım, 2017, p. 42). Several official reports criticized the dynamics of rotational working patterns, calling for the need for social policies in order to constitute permanent settlement projects (Gürboğa, 2009, p. 131). By the means of social policies, the government sought to solve not just the problem of labor shortage but to create permanent and skilled industrial labor (Gürboğa, 2009, p. 136). For that

reason, Ereğli Coals Enterprise, as a state-owned enterprise, subsidized a wide range of social policies, including health and social security, accommodation, daily meals, and education (Makal, 2018, 130). The logic behind those policies is perfectly revealed by one of Etibank's reports on the evaluation of social policies in the basin:

The topic of staff and workers in Ereğli Coal Enterprise is worth discussing in several respects. The first is the matter of finding permanent workers, the second is the case of the care of the workers. According to the economic principles, the better the worker is taken care of, the more attention is paid to their sleep, clothing, and diet, their productivity will increase correspondingly. That is why Etibank's current social policy is to look after the workers, to educate them, to provide clean bedding, nutritious food, culture, and health. Its sensitivity in all that matters, however, cannot be attributed solely to economic concerns. The State has a sense of paternity here. Some estimates say that this initiative will cost 15 million liras per year. The State is ready to gladly give this money to the workers and sees no reason to increase it every year. Therefore, people will still be satisfied, even if it means paying a little more for coal as a result. (Cited from Makal, 2018, p. 130).

So, in that report, the wide range of social policies appeared as a paternalistic apparatus that functions both providing a permanent workforce and increasing the productivity of the labor, rather than improving the workers' living conditions. After all, instead of increasing the reel wages, these social services and benefits maintained the low wage policy as a sort of compensation in the basin. Furthermore, through these social policies, the relationship between the workers and the state is constituted as a form of dependence, erasing the possibility of class struggle.

In sum, with the establishment of the Turkish Republic, the central governments' control over the basin has increased in relation to national coal politics. As a continuation of the Ottoman Empire, national elites also sought to enhance the coal production as much as possible. Even that, as a radical breakthrough from the Ottoman period, the uninterrupted coal supply is not just mainly regarded as a fuel for the war industry, but as a strategic channel that makes a self-sufficient national economy. So, throughout the 1930s, the Zonguldak coal became one of the main

materials that burst state-led industrialization. In relation to that, several factories, especially iron and steel factories, were constructed nearby the basin to reduce the costs of coal transportation. As a result, the basin turned into a uniquely special industrial hub of Turkey. Meanwhile, since the mid-1920s, the central governments' intention of the nationalization of the basin gradually became more apparent. At first, by a series of legal and institutional arrangements, the Turkish capital was favored in the basin. However, it was not sufficient when the rate of the state's coal consumption skyrocketed due to the etatist industrialization policies. On the other hand, the private mine operators were reluctant to invest in the mechanization of production because they were able to create a profitable coal sector, depending on huge numbers of manual labor with a low wage policy. In that situation, the state's interests, both as the biggest coal consumer with its enterprises and as a central authority in general, often contradicted with the private mining operators' which resulted in the full nationalization of the basin in 1940. From that point on, the stateowned enterprise, Ereğli Coals Enterprise, took the administration of the basin and reconfigured the basin according to the needs of the central state. The labor shortage was a chronic problem in the basin, so the company deliberately worked for solving the labor deficit without increasing the wages. Thus, social policies appeared as an effective apparatus to create a permanent and skilled labor force in the eyes of the state elites. During that period, the company constructed worker pensions, provided daily meals, medical hospitals, etc. Until the 1980s, the basin contained 40.000 workers and is referred to as the capital of labor in Turkey. In particular to that statist period, the government did not consider the coalfield as profit-making geography. Neither its administration strategy nor the capital structure is solely determined by the volume of profitability. On the contrary, throughout the Ereğli Coals Enterprise

administration, the coal is sold at way lower than its production costs in order to revive the industrial factories, transportation networks, and the national economy in general. Although, in some periods those losses beared upon the company and prevented its further investments, yet, abandoning the field never appeared as a systematic policy. Rather, the administrators, state elites, and scientific reports usually recommended on more investments to rationalize the production, increase the number of workforces, and technological advancements in order to minimize the losses. The state budget subsidized those losses, favoring the other segments of the industries.

CHAPTER 3

NEOLIBERAL CALCULATION

During the fieldwork, I went to meet with Ali at the general directorate of Turkish Hard Coal Enterprise⁹ (TTK). Ali was born in İstanbul and came to Zonguldak in 1984, for working as a mid-level bureaucrat at TTK. After working at the investment projects office for thirteen years, he is relocated to the section of legislation due to the reorganization of the company. The alleged purpose of the institutional reorganization was to eliminate some ineffective departments for improving the administrative structure. However, as an insider, he sadly thinks that it is more of an ostensible goal than representing the real intentions of the government. According to him, such fashionable policies were connected to the ongoing process of shrinkage of the institution rather than improving its condition. When "I came here", he stated, "the number of workers has already been melting as much as the rate of coal production". Meanwhile, the media was agitating about the fiscal burden of stateowned enterprises on the state, highlighting the economic losses of these companies. He was furious while revealing the gap between the media representation and what was actually happening. For Ali, the gap was intentionally created to discredit the Republican policies over liberalism. He sharply explained as: "The losses were not on the agenda up until 1980. It appeared as a direct effect of Özal's actions and the liberal economic principles he promotes. These are the calculations of liberalism, not our Republican period's.". That was a striking point for me. Although on the surface,

⁹ It was determined to reform the state-owned enterprises through an executive order issued in 1982. According to this law, instead of the Ereğli Coals Enterprise (EKİ), which was operating under the Turkish Coal Operations Authority (TKİ), a new company called Turkish Hard Coal Enterprise (TTK) will be established. Thus, the new company is removed from lignite production operations and restructured as a monopoly with sole authority over the production, sale, export, and import of hard coal.

his explanation seems to be nostalgically comparing between two historical periods, it goes deeper in terms of its interrogation of the nature of the economic calculation. His comparison enables me to question the objectivity and universality of the economic measurements. As a novice social scientist, I was already inclined to criticize economic models that are fostering inequality, neglecting the other parts of social life, and/or making several abstractions on human nature to build up their theories. Yet, I realized that somehow, I was still taking for granted mathematical calculations as the accurate representation of facts. However, Ali's statement demonstrates that calculation technics and economic data were not objective apparatuses that merely capture the reality out there, rather they both constantly shape and are being shaped within the sociopolitical context. Throughout this chapter, we will see that the company did not lose control of its economic balance all of a sudden in the 1980s. The economic loss was one of the many chronic problems for the EKİ throughout the post-World War 2 period. Nevertheless, in the 1980s, the perception of the loss is radically altered due to the transformations in the political power, economic theory, and energy regime of both Turkey and the world.

In this chapter, I examine the structural transformations that allow such a mathematical calculation to be formed, focusing on how the neoliberal calculation came to dominate the basin since the 1980s. By looking out, at the assumptions and calculation technics of the neo-classical economies, I intend to disclose the non-essential but political formation of neoliberalism. I attribute particular importance to the invention of such formulation because it paves the way for deindustrialization with all its arrangements and apparatuses that neglect, even destroys, the social and cultural life of the miners. That kind of economic understanding offers a framework that primarily concentrates on the loss in the paper without including the people

whose lives became dependent on coal production. On the contrary, throughout this period, the mineworkers are perceived as a group of people who are unable to comprehend the most basic rational reality and blamed for not prioritizing both their own and the country's interest in the eyes of state elites and media propaganda. However, the emergence of this calculation technic is not limited within the developments in the economic theory. Its appearance as a rational path, its conditions, and application only occurred with several socio-technical arrangements according to the changing conditions of international relations, the role of the state, and the energy regime in Turkey. So, in the second part of the chapter, I will analyze the neoliberalization process of Turkey which provides the material, symbolic, and infrastructural configuration of deindustrialization in the basin. Overall, this chapter aims to convince that neither deindustrialization nor the economic evaluations did not originate from the given natural causes. Instead, as upcoming parts will demonstrate, they each are the products of conflictual political interests, theoretical developments, international cooperations, material readjustments of production and commerce, and redistribution of the cost.

As Ali says the date 1980 marked a turning point for the region and also for Turkey. The combination of a notorious economic package, known as the January 24th Decisions, and a brutal Military Coup of September 12th, the coal basin and mineworkers became the main target for neoliberal policies. As discussed in the previous chapter, for more than a century, the basin's main characteristics as a resource frontier were rapidly transforming into a neoliberal frontier. Once it was the Zonguldak basin that would instigate the state-led industrialization and economic growth by supplying the flow of cheap coal. Ironically, since the 1980s, it was the very same basin that is considered as a burden for Turkey, believing to cause large

expanses in public expenditure and inflationary pressures. Under the full authority of the state-owned enterprise and its huge number of unionized workers, the basin represented the total wrongdoing of the Keynesian economic model (Yılmaz, 2019, p. 93). As opposed to that, with its counterparts around the globe, Turkey was experiencing the neoliberal turn, restructuring the state formation, market conditions, and private property rights in the favor of capital accumulation and economic elites (Harvey, 2005). The establishment of a market economy started to stand as the only choice for overcoming the foreign exchange crises, widespread shortages, negative growth, and high-rate inflation in Turkey (Rodrik, 1990). However, the power of economic transformations did not only rest on rearrangements of material lives and livelihoods but it also required the emergence of new ways of thinking in the everyday life (Mitchell, 2002). For example, the prominent neoliberal figure Margaret Thatcher relentlessly determined her mission as to change souls by using the method of economics. Simultaneously, her close ally Turgut Özal was advocating the moral value within the free market economy, stating that it softens and civilizes people and encourages the public to think economically (Bora, 2018, p. 550-555). Soon after the Özal's government, fortified its power with a military coup, the new economic thinking began to bear its fruit in the coal basin by introducing new ways of calculating the value of coal.

Since the beginning of the 1980s, the Zonguldak Coal Basin is introduced with the new conceptualization of the economic losses of TTK. Basically, the idea depends on the fact that the sale price of Zonguldak coal was far from covering the production costs. As a matter of fact, the company's economic loss was not a recent occurrence. Especially, after the Second World War, the company's losses had become one of the most serious chronic problems that state and company officials

had to deal with (Yıldırım, 2017, p. 21-40). Until the 1980s, however, the government believed that the best way to deal with the losses was to increase investments in the region. Strikingly, this understanding is totally altered. The authorities began to see the losses as the roots of evilness that needed to be eradicated, rather than a long-term problem to be solved. More importantly, the state was entering the process of abandoning the cheap coal policy, refusing the governmental subsidization in the basin, and putting both the blame and burden of losses upon the mineworkers. From that moment forward, the conditions of the new method of mathematical calculation were constituted, and the basin was haunted by it for decades. For example, it was effectively used against the unions' demand during the collective labor agreement in 1990, when Özal publicly denounced the impossibility of wage increases. He said:

The wage paid to the worker in the Zonguldak Coal Basin does not cover the cost of the coal you sell. If the losses have reached to 500-600 billion today, when you give a 60 percent raise, this deficit will exceed 1 trillion. Who is going to pay this money? Give the state papa, they'll say. How will the state pay? It will either increase taxes or print money... If you give too much money to a place where there is no production, you will fuel inflation. (Cited from Engin, 2012, p. 197).

During the fieldwork, I encountered with similar logic that was proposed by İshak Alaton¹⁰. My informants told me that İshak Alaton came to Zonguldak with an alternative solution to displace coal due to its high production costs. After thirty years, he explained his offer to an online newspaper as:

30 years ago, I visited Zonguldak. I told the crowd that the mines had to be shut down. They booed me. Then, I said: "be quiet and listen. You're stupid. How can you go underground and die for such a little money? Are you insane?". I also suggested that when the mines in Zonguldak be shut down,

with neoliberal ideology.

¹⁰ Ishak Alaton (1927-2016) was one of the founding partners of Alarko Holding and also one of the important figures in Turkish business life. During the 1980s, the ANAP (The Motherland Party) government promoted businesspeople like him as reference people to be consulted on all social and economic matters (Bali, 1998). So, aside from his economic interest in the basin, his symbolic power as a respected public figure carries more importance in terms of transforming the mindset in parallel

we can construct fish farms here. Following that, I rented lands at the seaside in Bartin, Ayancık, and Sinop. I constructed fish farms. On farms, I planned to produce salmon. I failed. It seems that salmon is not grown in the Black Sea. Then we were able to raise trout and sea trout afterward... I'm not looking to start a new revolution in Zonguldak. *This is a simple offer*. These people should not go to the mine and die... An ordinary miner earns an average of 800 liras per month. TTK and subcontractors employ a total of 15,000 workers. So, 350 million liras were spent. TTK losses are between 450 and 500 million dollars per year. 700 million Turkish liras are thrown into the streets every year. Instead, at the end of each month, we pay them an 800 lira check to their home address for these 15.000 people. Do not go into the mine. Let's get the mines shut down. Losses of 700 million minus distributed pensions of 144 million equal 556 million. Let's teach new jobs for these workers with those 556 million liras. *What a pity. These men should not die.*", (I added the highlights), (Kömür Ocaklarını Kapatalım, 2010).

So, both the establishment and diffusion of that simple economic equation radically changed the course of mining in Zonguldak. The state, as a sole employer in the coalfield, jibbed at maintaining the coal operations by highlighting the economic losses of the company. The response of the miners and the people of Zonguldak to this profit-loss account, which seems difficult to oppose within the norms of neoclassic economics, was one of the biggest strikes in the labor history of Turkey. After a month of the general strike, over 90,000 people marched to Ankara to demand fair wages and to prevent the threats of mine closures. But why is that? Are these people really too stupid to see this simple reality in front of them, as Alaton said, or are they a bunch of people who get used to fattening by the state's pocket without providing enough surplus value? To reach a fair judgment, we must examine the events through the eyes of individuals who have been personally impacted by and opposed those economic transformations, rather than through the lens of neoclassical economics. Only in this way can we move beyond the "logical" mathematical calculations and grasp what was at stake for those people and the social life they were attempting to safeguard.

Sadness and anger were common emotions in remembering what has happened since the 1980s. Regardless of their socioeconomic background, nearly all of my informants expressed some kind of sadness over what has been lost. Apart from economic motives, their stories of loss are primarily social in nature. For example, Elif, as a child of a miner family, remembered the vibrancy of social life in the old times in Karadon, one of the mining regions in Zonguldak. She said:

The socialization was not a real problem for miners' children who stayed in public houses. We were already been friends before going to school. There was a sense of security in the neighborhood because people knew each other, and therefore we could play in the streets all night... We had a lot of playgrounds, which were also built by the company. Our movie theater hosted school performances on the weekends. Theaters would also come to show in there as well. (Appendix B, 3).

Also, Kamil, who currently works in a local civil society organization, drew a symbiotic connection between the existence of welfare state and the vibrant social life:

Those were the years the principles of welfare state still existed. Hence the state did not just seek to make money in here. Beyond that there was a social issue; there were social activities. The institution, TTK, did not just extract coal but at the same time it built up schools, movie theaters, and other social and cultural facilities that satisfied the people's needs. (Appendix, 4).

Although these public services have never been equally distributed among the classes (Şengül and Aytekin, 2017, p. 28-29), yet their existence helped to thrive in social and cultural life which are articulated around the mining occupation. So, unlike İshak Alaton's claim, his simple offer has much more social costs than it reveals.

The sense of frustration was another intense emotion that I encountered during the interviews. This time, though, it is mostly derived from the feelings of loneliness and being unheard. Similar to Ali's argument, a former miner, Veli, stated the wrongdoings in the calculation as:

These types of mines either work with economic losses or come head-to-head throughout the world. This is particularly true in places where coal is extracted at great depths. However, the profit and loss are not calculated in this manner. Now, you calculate the cost of coal mainly from the labor costs and determine its selling price. This is how profit and loss are calculated, right? However, for example, coal goes to iron and steel factories or is used in other industries. And there is a tremendous profit in the iron and steel sector. So, you have to look at those sectors' profits if you want to properly calculate the value of coal. Consider that you have never mined, never extracted coal, then those sectors cannot produce. There will be no manufacturing and no profits anymore, anywhere. This is how you should calculate your profit and loss. You should look out for the other places and their profits while determining the value of coal. For example, let's say the coal costs you approximately 1.5-2 billion dollars per ton. But if you make out of something else by using that, you might earn 15-20 billion dollars. So, this is how it should be calculated. It is also necessary to consider its benefits in the country. (Appendix B, 5).

However, even though the other ways of calculating the value of coal are widely known and experienced among the miners in the basin, their demand is insistently suppressed by the media propaganda. Ali said "in that period the media inserted the idea that state-owned enterprises are the burden of the state to the public. As a result, nearly all of the state-owned enterprises were saddled with the burden of economic crises." So, from the very beginning, miners knew what was coming for them and tried to oppose by either in the form of organizing strike or publishing several reports that suggested the way to evaluate the value of coal. Yet, their struggles are suppressed and isolated.

3.1 Let's assume we have a can opener and rule the world by it

The catchphrase of assuming the existence of a can opener comes from a well-known story about the economists who base their theories on a priori assumptions (Boulding, 1970, p. 101; also, Buğra, 2001). In that story, a physicist, a chemist, and an economist are stranded on a desert island trying to find ways to open a can of food with no equipment. To make a long story short, while the physicist and chemist each

are coming up with clever solutions thanks to their professions, the economist merely says "assume we have a can opener". That fun story is beautifully points out the weaknesses of economics, reminding that economics cannot move without making several assumptions. However, most of the time, it is claimed that by neglecting this particular feature of economics, economics can be the most beneficial science in comprehending the reality as it is. On the other hand, as the total opposite, the economics is also criticized for its disembedded nature from the life itself without mentioning the power of economics to shape the world. So, in this part, I offer the criticisms about economics, which are assembled in two forms as its essentialist assumptions and its exclusions, and simultaneously discuss the power of economics in shaping the world.

During the second half of the 20th century, Timothy Mitchell (2002, p. 272) asserts, economics established its authority over politicians as a form of universal science that enabled to describe the conditions of the countries, diagnose their fundamental problems, and offer a way to achieve prosperous growth. By employing its language and toolkits, the governments are able to gain new modes of seeing and measuring the economic practices that mainly focus on predetermined data (such as GDP, monetary and fiscal balances of the states, or the growth and employment rates) in mathematical forms, without taking far more complex social and cultural reality into consideration. Although these lively complexities and relations melted into calculable statistical forms, the hegemony of economics stood as the most real representative of the social world apart from any other social sciences. In fact, those mathematical calculations and quantitative methods are regarded as scientific proof of the actual nature of phenomena (Mitchell, 1995, p. 14). However, as a science historian Philip Mirowski (1995) demonstrates the scientific quality of neoclassical

economics did not come from its ability to represent the reality as it is, but from its sheer translation of physics' methodology, terminology, metaphors, and models of explanation. In this way, the discipline of scientific economics embodies the notion of materiality, deriving from the conceptual understanding of passive and universal Nature, while composing its claims over societies. Its power rests upon the belief that the discourse of economy is the only universal language in the social sciences that can truly speak of the conditions of the societies. While the other disciplines, such as sociology, anthropology, and history, are dealing with the complexities of social forces, cultural variations, and interpretative differentiations, contrarily, throughout the 20th century the discipline of economics invented the idea of the economy which is disembedded from any social ties, but applicable to the any given context (Breslau, 2003).

As much as economics and its tools provide a reliable source of acquiring knowledge about the world for governments, it has been extensively criticized by many social scientists. These critiques are aggregated among two clusters; its a priori assumptions in order to build a robust theory and its too many exclusions while calculating the value or costs of an economic practice. For example, in her book Economists and People, Ayşe Buğra (2001) indicates how economists built up their theories on the assumption of the existence of homo-economicus. By separating economic behaviors from general human action, economists believed that the personal interest of an individual organizes all economic activities in every society. According to that assumption, individuals are thought of as rational entities, seeking the maximization of personal interest in their transactions. However, she insistently underlines that the existence of homo-economicus is neither sufficient nor self-explanatory without deploying another assumption about the market society at the

heart the economic science (2001, p. 35). Largely inspired by Karl Polanyi's comparative work on diverse economic systems and his conceptualization of the selfregulating market economy, she asserts that assumptions about human nature only become meaningful with the existence and domination of a particular understanding of the market economy. Similar to the imagination of homo-economicus, the market place was conceived of an abstract space and ruptured by any kind of material referents where only individual utilities can meet and balance each other. Mitchell (1995, p. 15) explains the main quality of the market of neo-classical economics as "a neutral space, that had no depth, no dynamic structure, no forces of its own, no "macro" dimension that could be described apart from the individual utilities that moved across it. It was an inert, an unmoving space.". On the other hand, depending on a similar description of the market economy, Bonneuil and Fressoz (2016, p. 209) criticize the economic theory for disconnecting its ties with material grounds in order to embody the exponential growth. They claim that the economists of the 19th century started to describe the economic activities according to the psychological effects, as for example seeking the maximization of personal interest, rather than studying the material factors of production (labour, capital, and land), (2016, p. 209-210). So, in this first form of criticism, scholars focus on how did the economic theory depend on two a priori assumptions on human nature (which is the main actor of the economy) and the market place (which encompasses all economic transactions in an abstract space). By relying on those assumptions, the economic theory made important abstractions from material relations in order to achieve a universal and certain field of domain.

Yet, it will be wrong to claim that the economic theory is simply wrong due to its essentialist abstractions. It should not be missed that those economists had

acquired the authority to "alter the real world to make it perform according to their ideas" (Mitchell, 2015, p. 174). Their success can never be determined by their ability to represent the world as it is, but by its ability to fabricate a world according to their theories. In the beginning of the 20th century, the German sociologist Georg Simmel (2002) perfectly captured and described the result of this alteration by analyzing the condition of metropolis life as a world of unending calculation. In the Metropolis and Life, he basically compares psychological conditions between rural and metropolis life and reaches out important inferences about how did the dominance of money economy in the metropolis has affected the perception of individuality. He writes (2002, p, 12):

Money is concerned only with what is common to all: it asks for the exchange value, it reduces all quality and individuality, whereas in rational relations man is reckoned with like a number, like an element which is in itself indifferent. Only the objective measurable achievement is of interest.

He identifies the quality of an unmerciful matter-of-factness of market production as the cause of this bizarre transition of qualitative personal relations into quantitative interests. It is because, market production is entirely abstracted from any form of personal relations, the anonymity between sellers and purchasers in the market allows one to freely consider their own personal interests without concern for emotional attachment and responsibility to others. In addition, he also connects the emergence of the new character of calculability to the growing influence of modern science over everyday life, as saying:

The calculative exactness of practical life which the money economy has brought about corresponds to the ideal of natural science: to transform the world into an arithmetic problem, to fix every part of the world by mathematical formulas. Only money economy has filled the days of so many people with weighing, calculating, with numerical determinations, with a reduction of qualitative values to quantitative ones." (Simmel, 2002, p. 13; also, for Mitchell's discussion about the topic, 2002, p. 80).

As mentioned above, on the one hand, the scientific inheritance of the economics from the discipline of physics provides a sense of certainty and precision for their analyses. It seems that statistical knowledge enables to mask the certain essentialist assumptions that economic theory is built upon. However, on the other hand, as many social scientists discuss, those essentialist assumptions cannot be regarded as wrongdoings of economics. It is because its sphere of influence does not relate to the issue of misrepresentations but the ability to create a world according to its own theory.

The second form of criticism about the economics mainly focuses on how and to what extent the science of economics excludes the practices, people, and other forms of economic systems while calculating the value or costs of an economic practice. By revealing the existence of the several marginalized economic systems and demonstrating the historical construction of the market economy, scholars tend to criticize the economic theory for both being ahistorical and amoral, and also for not including the real costs of creating value. These valuable studies remind us that the concept of the economy cannot be taken for granted and imaginative perceptions and designs can wholly change the configurations of the economic activities.

Malinowski's work on kula trade among the communities of the Trobriand Islands is an important milestone for proving the existence of other economic systems rather than market economy. In his book Argonauts of the Western Pacific (1922), Malinowski outlines the characteristics of the kula exchange system, which is based on the trade of socially meaningful and symbolically valuable necklaces in a highly regulated and fixed system of transactions. He explains the importance of kula exchange for the communities as:

This simple action— this passing from hand to hand of two meaningless and quite useless objects— has somehow succeeded in becoming the foundation

of a big inter-tribal institution, in being associated with ever so many other activities, Myth, magic, and tradition have built up around it definite ritual and ceremonial forms, have given it a halo of romance and value in the minds of the natives, have indeed created a passion in their hearts for this simple exchange (1922, p. 66).

Heavily influenced by Malinowski, Karl Polanyi (1945) develops his notorious concept of "embeddedness of economy" within the political, religious, and social relations which contradicts the understanding of an autonomous and self-regulating free market. According to him, the market economy is not a natural phenomenon that exists all over the time and place, rather it is a "political project" of the 19th century, constituted through the conceptualization of land, labor, and money as pure commodities (Buğra and Ağartan 2007). However, after investigating ancient and non-European economic systems, he comes to the conclusion that in many societies, economic relations are carefully organized within the institutional patterns and traditions for not just regarding the maximization of economic profit but regulating the function of social organization (1945, p. 52). With similar intentions, Gibson and Graham (2006; 2008), feminist political economists, embark on a big undertaking of theorizing economic diversity in order to undermine the representative authority of capitalism as the sole mode of production and to vibrate the anti-capitalist imagination. For that account, in the beginning of the book The End of Capitalism (as we knew it), they critically elaborate on the discursive artifact of capitalist hegemony and its performative effects of erasing the value of non-capitalist economic relations. Their difference from Polanyi, however, they are not specifically in need of visiting the ancient times or non-European geographies to find out noncapitalist/free market sites and relations. Rather, by offering a new understanding of capitalism, which therefore puts an end to capitalism as we know it, they try to open up a place for economic diversity even in most capitalist countries.

However, Anna Tsing (2015, p. 66), a feminist and political anthropologist, disagrees with both understandings of capitalism either "as a single, overarching system that conquers all" or as a "one segregated economic form among many". Although she appreciates Gibson and Graham's effort to demonstrate the existence of non-capitalist forms even in the midst of the most capitalist countries, she does not see those forms as alternatives to capitalism. Instead, she looks for "noncapitalist elements on which capitalism depend" (2015, p. 66). She investigates how capitalist wealth accumulation is made possible in pericapitalist sites by looking at the exploitative relationship between those two forms. Giving examples from the feminist ethnography and colonial histories, she underlines the necessity of getting out of the logic of capitalism for capturing a better understanding of how the value is created with so many exclusions, devaluations, and exploitations.

When the gross domestic product (GDP) becomes the most important metric for determining the size and growth of a country's economy, issues about the exclusion and devaluation of the economy become more heated. It is primarily because GDP only measures monetarized transactions, omitting non-monetarized relations and activities out of its interest, despite the fact that they are also very important elements of economic growth (Mitchell, 1995, p. 6). For example, although unpaid household practices and care work constitute 30-50 percent of economic activity around the world (Ironmonger, 1996), they are simply ignored in national statistics unless those goods and services are purchased on the labor market. As a result, feminist scholar Marilyn Waring (1988) criticizes the national income accounting system for being discriminative, claiming that it is specifically designed to keep women in their place. Furthermore, while calculating the monetarized activities, the GDP does not make any distinction between public good and bad, or

costs and gains as long as the circulation of money continues and grows at large (Cobb et al, 1995, p. 2). So, building more prisons, dams, power plants, etc. contributes to the national economic growth apart from their collective beneficiaries. In that respect, Cobb, Halsted, and Rowe (1995, p. 11) developed a new index, called as Genuine Progress Indicator (GPI), that tries to "gets much closer to the economy that people experience" by including other aspects of economic activities that GDP ignores. What is noticeable about the GPI is how it differs from the GDP in terms of assessing wealth and growth. The GPI allocates a significant portion to the household and volunteer economy, stating that "much of the nation's most important work and the work that affects our well-being most directly—gets done in family and community settings." (1995, p. 11). Crime, natural resource depletion and habitat destruction, and the loss of leisure time, on the other hand, are considered negative growth because of their enormous costs to communities' lives. By offering a new way of measuring the growth with respect to people's experience of economic activity, those scholars indicate that "the costs of increased economic activity have begun to outweigh the benefits, resulting in growth that is actually uneconomic" (1995, p. 12).

Both interconnected groups of criticism of economics provide invaluable insights on the importance of not taking economic knowledge for granted. Despite the fact that 19th century economics was able to develop an economic theory that can be applied in any context based on physics' conception of Nature, social scientists successively reveal its essential assumptions about human nature and the market, pointing out how the sphere of economy is constructed by excluding the work and value of marginalized communities, exploiting non-capitalist activities and geographies, and erasing other forms of economic systems. While those imaginative

projects are disclosing the fact that economics does not reflect the reality as it is, they also broaden our vision to think of alternative ways of measuring, calculating, and evaluating the economic activities. They remind us that, beneath the universal claims, the conceptualization of economy is always a "political project" in which conflicting interests collide, new calculation techniques emerge, institutional changes occur, exclusions are created, and so on. As a result, during those material struggles, crises, and transformations, economic theories can emerge and reshape the world according to their own standards, even if they appear out of context, have no connection to material reality, or ignore the public good. In line with that argument, since the 1970s, the world has been introduced to a new economic model that was offered by several economists, as a response to a series of social, political, and economic crises. Retaining the assumptions on homo-economicus and free market ideology, even stirring those up to the extreme levels, neoliberalism became the organizing principle of almost everything (Graeber, 2011, p. 376).

3.2 The neoliberal turn

Since the 1980s, the term neoliberalism has become one of the most widely used, extended, and sometimes elongated concept to explain everything in the world. The political history of neoliberalism is frequently regarded to have begun in the 1970s, either with the military coup in Chile, the global oil crises, or the political ascendancy of Thatcher and Reagan in Britain and the United States. Especially, after the collapse of state socialism in the Soviet Union, the establishment of the authority of the neoliberal market appeared as the only solution to achieve economic prosperity for countries all over the world. International agencies such as the IMF and the World Bank (WB) praised the neoliberal agenda, claiming that it would save

millions of people from abject poverty by expanding global trade, advancing technology and know-how in developing countries by attracting foreign investment, and leading to more efficient provision of services, which also would reduce the fiscal burden on governments by privatizing state-owned enterprises (Ostry et al, 2016). However, in reality, as David Harvey (2005) asserts, wherever the neoliberal policies are implemented, the share of national income has been restored for the benefits of the bourgeoisie class. Therefore, he approaches cautiously about the power of neoliberalization as "a potential cure-all for the political-economic ills" (2005, p. 154) and interprets "neoliberalization either as a *utopian* project to realize a theoretical design for the reorganization of international capitalism or as a *political* project to re-establish the conditions for capital accumulation and to restore the power of economic elites." (2005, p. 19). In either scenario, he challenges the normative understanding of neoliberalism as the only path to achieving economic prosperity and details how it is conceptualized and implemented by a small and exclusive group of scholars, experts, and politicians.

Although neoliberalism, with its provisions and policies, came to dominate public life in the 1970s, its organized intellectual roots extend back to the 1940s. In the immediate years after World War 2, a group of liberal intellectuals formed an organization called the Mont Pelerin Society to revive the ideals of personal freedom, private property, and competitive markets. The members of the organization were felt to reformulate liberalism while exposing the "dangers inherent to collectivism" in the face of the destructive impacts of 19th century liberalism, the death machine of fascism, and state socialism (Turner, 2007, p. 67). So, alongside the socialism, the liberals of Mont Pelerin Society opposed any kind of state interventionism whether it can be Keynesian state, New Deal progressivism, or German state corporatism,

claiming that interventionism/collectivism "in all its guises invariably meant collective ownership of the means of production and collective direction and control of their use" (Turner, 2007, p. 70-71). On the other hand, however, they were hesitant to completely abolish the state (Birch, 2015, p. 572). Since the state was central to the rule of law and had a monopoly on the legitimate use of violence, those scholars needed the existence of the state for setting up "those military, defence, police, and legal structures and functions required to secure private property rights and to guarantee, by force if need be, the proper functioning of markets." (Harvey, 2005, p. 2). Beyond that, neoliberal scholars believed that the function of the state in the economy has to be restricted only with monetary and fiscal policies. In contrast to the Keynesian economic model, neoliberals saw the government's active involvement as unproductive, uncompetitive, autocratic, and a source of inflationary pressures.

Those views, however, were mostly unnoticed for a gradually long time. Neither in the intellectual spheres nor in any government, those concepts failed to elicit enthusiasm. It is mostly because the Keynesian model of economic growth, in combination with the cheap and abundant flow of oil from the Middle East, gave a convincing response to the experience of mass unemployment and depression (Mitchell, 2011, p. 109-143). Unlike the liberal economists, the Keynesian national economy offered a consensual framework with labor movements by limiting and reducing the operation of market competition and personal interests. So, in the afterwar period, the liberals often found themselves alone in perpetuating their theories. No one acted as if they have discovered something hidden in the economic theory. Therefore, Friedrich von Hayek, a prominent neoliberal figure, said that liberals should focus on a psychological alteration in the character of the people rather than hoping for immediate societal transformations. From the very beginning, the task of

the members of MPS was determined as "to construct a 'liberal utopia' based on the principles of free trade and freedom of opportunity... and to challenge the present socialist one" (Turner, 2007, p. 75). Following that task, neoliberals while delicately constructing their economic model as an alternative ordering of knowledge, in the meantime the numbers of the neoliberal organization were proliferated (Birch, 2015, p. 574). Those national and international organizations, think tanks, international policy groups, and networks did not just provide spaces for developing a liberal utopia, but also when neoliberal ideas are needed, they underpinned the policies of politicians, states, and international organizations such as IMF and the World Bank. Through these collaborations, ideas are constructed, utopias are imagined, the order of knowledge is settled, the calculation of cost and benefit is re-evaluated, and a neoliberal economic model, which can be applicable to everywhere by following the very same rules, is invented.

Since the 1970s, neoliberal discourse and practices have begun to gain the hegemonic ascendency that neoliberals had hoped for in the fight over capturing common sense. In the following decades, neoliberalism offered a sense of seeing, understanding, interpreting, and transforming the world, operating the enactment of free market. International organizations prepared economic packages that promote the privatization of state assets, liberalization of trade and capital mobility, and marketization of public services (Birch, 2015, p. 574). The understanding of the welfare state yielded to corporate welfare. The public expenditures of the states have radically declined by the implementation of neoliberal policies and debt regimes of such international organizations. The perception of public good came to clash with the perception of personal interest, and even the public good is tried to conceptualize by extending the domain of the market transactions.

From the perspective of industrial production sites, the ubiquitous consequences of neoliberalism are best understood. It is because most sites, including Zonguldak Coal Basin, who could not compete within the global markets, the productive factories either abandoned or diminished their production. Thus, the transformative power of organized labor and their effective methods of the strike have been disempowered because of the possibility of losing their jobs to abroad. For example, Zonguldak Coal Basin experienced a radical decline in terms of both production of coal and the number of workers due to the restructuring of the state and economy. Previously, the basin drew state capital, migration of workers, and fantasies of state elite centered on the coal economy; but, since the 1980s, their allure has gradually faded as production expenses have become perceived as a burden for the state. In the next part, I will describe the traumatic and conflictual history of neoliberalism in Zonguldak, which opens the way for deindustrialization by specifically putting the production costs forward.

3.3 Zonguldak meets neoliberal calculation

Zonguldak was noted in the literature for having a golden age between 1947 and 1980. When World War 2 ended, in 1947, the compulsory work regime came to an end. Following the immediate years after the war, the First Development Programs were launched in the basin as part of Marshall Aids to enhance the production capacity, and foreign monetary resources of around 103 million dollars were allocated (Zaman, 2012, p. 270). Improvements to existing facilities in the basin, as well as the installation of new facilities and mine mechanization, were all planned as part of this development program. Construction of a new power station (known as ÇATES), a port, new coal washery factories, new mine shafts, and also several social

facilities such as worker dormitories, dining halls, coffee shops, showers, theaters, canteens, civil servant and worker housing, schools, clubs, and canteens were among these projects (Savaşkan, 1993, p. 56-60; Yıldırım, 2017, p. 26). Alongside these developments, the workers could establish a union called as Mine Workers Union of Ereğli Coal Basin (Ereğli Kömür Havzası Maden İşçileri Sendikası) in 1947. Although the state mostly hindered the practice of union rights in the early decades of its establishment, the existence of unions caused serious issues for both administrations and governments in later years as political power was concentrated by an increase in the number of workers. So, unlike the previous periods, the basin both industrially and socially developed as an industrial hub of the Turkish Republic.

My observations throughout the fieldwork also correspond to Zonguldak's development during the state-owned enterprise. The majority of the informants used instances from this time period to compare the city's loss and shrinkage since the 1980s. Veli, for example, compared Zonguldak to Turkey's Germany at the time. He proudly said:

The Turkish economy benefited greatly from Zonguldak's efforts. In those years, Zonguldak, for example, was Turkey's tenth largest city. Both in terms of population and industrialization... It even came in sixth place in terms of industrialization. It was a place where Turkey grew. (Appendix B, 6).

Also, Elif highlighted the vibrancy of social life during her childhood as:

There are workers' coffeehouses. Our home is across those coffee shops. Because they worked in shifts, those coffeehouses were open 24 hours a day, day and night, and there were hundreds of workers. There were small grocery stores. Every 2-3 months, workers used to call Köçeks to play in front of the coffeehouse. So, you would see a lot of people. There were always stories going around. The peddlers would come. People would come selling for very strange things. I was constantly observing like this, and there were constant events day and night. They would buy alcohol and drink, and the guards would arrive... Or there would be a match, and would they sing... I mean there was always a noise and an enormous crowd. (Appendix B, 7).

Ali, on the other hand, lauded the state-owned firm EKİ for making significant investments in the city's social life. He described the period of EKİ as the establishment of full democracy in the region. He explained the active involvement of EKİ in the making of social life as:

The traces of EKİ were everywhere in this city. EKİ built schools, cinemas, tennis courts and social facilities in here. Even it had a bakery where they baked bread. The institution had its own markets. So, it was a place like that. EKİ was responsible from everything. From the mosque you see in this city to the road, EKİ had no place without its contribution. That's how these things were. But now the EKİ is over and has been devoured. Then, in parallel with this, the city, which was everything to this city, began to shrink. (Appendix B, 8).

These are important anecdotes that allow us to make a comparison between two time periods. Those stories can easily be dismissed as being nostalgic for the past without taking into account what these individuals are attempting to convey. Each account, however, can also be regarded as testimonies of what have been lost, how life was organized according to the different criteria, and what have been settled since the 1980s. The existence of the state-owned enterprise and its public duties extended the limit of normative economics. Alongside the operating coal mining in the region, the state company also helped to thrive the social life around the city. Other than seeking economic profit, it had responsibilities such as building schools, public houses, and movie theaters, as well as providing affordable food and lodging to mine workers. Yet, as mentioned in the first chapter, these widespread responsibilities continued to depend on the supply of abundant, uninterrupted, and cost-efficient coal from the basin to the industries. So, it is critical to note that the state's large public expenditures at the time were not invested in the region for the benefit of workers or the broader public, but rather for its own capital accumulation logic, which was primarily coordinated by the supply of cheap coal to the industries.

Therefore, the company did not suffer an economic loss for the first time in the 1980s. Neither the transformation of the economic model nor the incapable administrations contributed to the emergence of the loss of the company. Rather it was a known fact even in the late 1940s and it brought several obstacles to making the necessary investment in the basin (Yıldırım, 2017, p. 29). During those times, the state company was in a predicament. The company did not give mechanization in mining since it could not obtain the necessary large-scale investments for many years, and production could be only increased with cheap and abundant labor. At its peak, the mining district had approximately 40.000 registered mine workers in the basin which made Zonguldak as the number one city in terms of labor density in Turkey. However, on the other hand, the extensive use of labor raised coal costs, making it impossible to attain the desired efficiency. Plus, when this chronic predicament combined with the state's low sale price policy of coal to the industry, suffering from the economic loss became an inevitable and long-term fact for the region.

What had changed since then? If the economic loss of the company was not a new phenomenon that emerged and became unendurable after some kind of economic crises or the adaptation of neoliberal policies, what have had happened and the company's losses are started to be regarded as a burden for the state? First of all, the perception of the economic loss and the methods of dealing with it have significantly altered, especially among the state elites since the 1980s. Prior to that, even when the losses were the most severe, mine closure did not appear to be an option. On the contrary, state elites attempted to solve the problem by increasing the basin's production and productivity rates. For them, the importance of the supply of cheap coal to the industry was the number one goal, so they had to learn to live with

the existence of loss. The threat of a coal shortage became a more serious issue than the company's own loss (Yıldırım, 2017, p. 26). It is because, throughout the import substitution industrialization period of the 1960s and 1970s, domestic production of cheap energy input prevented both increasing the foreign currency shortages and also the price of industrial end products (Şengül and Aytekin, 2012, p. 156). So, even while the company's financial difficulties limited mining operations in the region and prevented the state elites from wholly fulfilling their aspirations, the perception of economic losses was always viewed as a trivial issue in comparison to the national economy's growth. The mine was not perceived as an abstract and isolated entity that is disconnected from the rest of the productive system. Therefore, the company's maximization of financial value was not the primary goal. The coalfield was not a source of profit for the state elites. Rather, they were interested in the long-term development of the national economy, particularly through increasing the production rates (for example which were utilized as a cheap input for industry, created employment possibilities, and were thought to export for the need of foreign currency).

However, since the 1980s, the state company's losses have been a primary focus in determining the basin's coal production policy. This shift in focus from the national economy to the economic loss of the state-owned enterprises is founded on neoliberal ideology's structural readjustment plans. The architecture of neoliberalization in Turkey, Turgut Özal published an article titled The Principles of New Vision in The Development in 1979 (Özal and Barlas, 1996, p. 200-223). In that article, he wrote:

According to our perspective, the state's expenses will decrease since it does not engage in non-economic and loss-making investments, economic development is mostly driven by individuals, and the state serves as a regulating and encouraging body. According to our understanding, in the

New Vision, the state may be run with half as many civil workers as it currently has, if not fewer... There is no need for government income to increase at a rate that fosters inflation and slows the economy as they do now if significant burdens such as Economic State Enterprises are removed. In fact, the state in the New Vision, which we think of in this way, may receive a smaller portion of national revenue in terms of ratio, but it will offer a considerably higher income in absolute value than the state in today's concept. (Özal and Barlas, 1996, p. 215).

The Özal's government, which he bolstered with the January 24 Decisions and the military coup that followed in 1980, laid the groundwork for this transition.

According to Özal's thinking, public firms should only be judged on the basis of their net financial accounts, which, at least on a conceptual level, led to the separation of such companies from their intertwined production systems. Thus, evaluating the efficiency of state firms only based on financial accounts resulted in a fairly different perception of employment, social services, and overall economic loss. The Keynesian goal of the full employment translated into overemployment and that is interpreted as an extra burden for the state.

As a result of this shifting perception of the economic loss, the Zonguldak Coal Basin has come to be seen as a microcosm of the wrongdoings of statist policies: it was under the state's property, one hundred percent unionized, and historically only in 1967 and 1974 was the company able to meet their production goals and accumulated surplus (Yılmaz, 2019, p. 93). In addition to the unproductiveness of the coal sector, also both Ereğli and Karabük Iron and Steel factories were in the same situation. In his article, for example, Özal blamed the Karabük Iron and Steel company for employing an excessive number of workers with high wages, which he claimed had become an illness for the Turkish economy (Özal in Barlas, 1996, p. 220). Several mining pits in the basin were closed in 1988, citing the pits' inefficiency as a justification (Yılmaz, 2019, p. 93). In the same year, a report is released stating that the required investments to maintain coal production

have been severely reduced. According to the report, the State Planning Organization did not provide adequate allocations, the necessary internal and external financial resources were unavailable, and materials that had to be imported from abroad were particularly difficult to obtain, all of which inevitably reduced production and, more importantly, increased the risk of mine accidents (Zaman, 2012, p. 354).

When the policy of disinvestment combined with the sheer marketization of the coal sector, the relative price of the Zonguldak coal in comparison to imported coal or other fossil fuels could not reach to the competitive levels. Since the early 1980s, the government has been attempting to connect the highly regulated coal sector to the competitive worldwide market by removing state controls and subsidies. In 1984, the state's responsibility to regulate coal prices was given to the TTK, in keeping with the competitive and open market model (TTK, 2011, p. 66). Moreover, in 1986, this time the subsidies for coal have been eliminated by the government (TTK, 2011, p. 66). These political moves and the redefinition of the coal market incapacitated the power of coal workers and the Zonguldak coal in general. Production rates and workforce have consistently shrunk up to this day as a result of disinvestment, marketization, and the disrespectful perception of coal employees as Turkey's burden. The state-led industrialization system, which comprised of companies running in tandem and depending on low-cost labor and input, has been replaced by a new model in which market-based independent and private factories have begun to operate for their own profit.

In 1990, mine workers went on strike as a result of conflicts in collective bargaining agreements and threats of complete mine closure. The right-wing government, inspired by its counterparts in Britain and the United States, intended to reap the fruits of its decade-long downsizing policy by either entirely privatizing or

closing the mining pits, citing their high expenses on the national budget as justification, but without offering any realistic alternatives to the region. Therefore, in the winter of 1990, workers responded to those threats by organizing a march to Ankara, expecting to promulgate their voices to the government and the public in general. Evrim Yılmaz (2019, p. 94) defines that march as "the first and biggest opposition to the deindustrialization issue in Turkey". The march drew more than 90.000 people, attending from very different backgrounds, and the march is recognized as the strike of the city rather than a workers' strike. Mehdi, who was in the chamber of industrialists at the time, summarized the situation as follows:

We took part in the march in 1990 as the head of the chamber of commerce and industry. I was in charge at the time. Isn't this the kind of organization that should encourage privatization? I work in the private sector. All state institutions, in my opinion, should be private. That is the mindset. But we did. What happened? Together with those workers, we came out as the chamber of commerce and industry with people from Zonguldak, 8-10 people. We joined that cortege and marched. Look at that contradiction! But there is a reason for this, we are not business people. We are tradesmen. We have a shop. The more money the TTK worker receives, the more it works for us. So now our own behavior is rational. We protect our interests there, but look at the contradiction. (Appendix B, 9).

Also, according to unionist Nedim, the reason for the entire city's participation in the strike, rather than just the workers, was because of the inherent excellence of the mining sector and its added value quality. He says:

The mining industry is not limited to the number of people working there. There is also added value and employment as a result of this. In addition, according to our review board, when a miner is employed, 13 more people are indirectly employed. Plus, when we include their families, the numbers add up to a certain degree. So, when you find a solution for one person, you are not solving a problem for the entire city. There isn't a solution for families. (Appendix B, 10).

From these statements, it can be easily seen that the threat was not restricted to simply losing one's job, but also the living capabilities and arrangements of communities in the basin. Even though neoliberal calculation was only interested in

economic accounts on paper, the situation was considerably different at the basin. Despite the deadly and exploitative working conditions, the workers and residents of the basin have been able to develop communal ties, a vibrant social life, and a regional economy centered on coal mining. Therefore, they were very aware of what was coming for them when they were confronted with the threats of privatization or mine closure. It was interpreted as an attack on the existence of Zonguldak (Denizer, 1991, p. 22). Alas, as a result, the path of deindustrialization was opened by repressing those voices, not offering any realistic alternatives, and dissipating the process over thirty years.

Overall, in this chapter, I try to demonstrate how a particular type of economic calculation had settled and opened the route of deindustrialization in the Zonguldak Coal Basin. Throughout the emergence and implementation of the neoliberal mode of calculation, it has been promoted to the public as if it represents the simple reality of the economic condition of coal economy, without acknowledging the political reconfiguration process that underpins that fabricated mode of calculation. However, as stated throughout the chapter, in order to arrive at a reasonable and logical calculation in the Zonguldak context, every actor's position had to be reshuffled, the meanings of state and coal had to be redefined, and the energy market's conditions had to be secured by the flow of imported coal, oil, and natural gas. The conditions of this particular neoliberal calculation are not those of mathematics or natural constraints but of restoration of political power and social inequality. What appears as a logical calculation, which is constantly made by neoliberals, not in any instance by coal workers, is already shaped by power relations, economic expertise, and free market relations. So, as with the İshak Alaton's offer to the coal workers, it would be meaningless to moot the issue of poor

working conditions in the mines for supporting the mine closure to the people who have to mine in those conditions every day. As discussed in the first chapter, the basin is specifically imagined and materially organized around the extraction of a single resource. So, in the context of Zonguldak, that offer simply corresponds to the well-known local idiom of "death may be below, but hunger is certain above".

Therefore, the coal miners and residents of Zonguldak have known exactly what is at stake since the arrival of the neoliberal calculation in the basin. They were trying to defend not deadly and low wage working conditions for simply nostalgic reasons or irrational impulses, but to defend the vibrancy of social life which was "the lifeblood of local identity and the basis of their feeling of local self-worth" (Şengül and Aytekin, 2012, p. 170) which was not understandable within the neoliberal logic.

CHAPTER 4

UNENDING DEINDUSTRIALIZATION

All of my informants agree upon the fact that the coal basin has been experiencing the destructive effects of deindustrialization, as evidenced by the restructuring of production, a decrease in public investments, the number of mineworkers, and the rate of output since the 1980s. The deliberate and intentional efforts to dismantle the state-led industry, however, were not an immediate process that caused by a single policy of either total closure of mines or privatization. Rather, it was extended over decades, encompassing a wide range of strategies ranging from disinvestment, and compulsory retirement policy to privatization, all of which prepared the conditions for a particular type of deindustrialization special to the coal basin. At some point, the intentional efforts and their destructive effects molded into each other and created a form of deindustrialization that never ends. Since its inception, the basin stuck into the deindustrialization cycle, without finding a viable alternative path for the regional economy. Instead, this cycle brought up more serious issues of unemployment, migration, and the loss of communal life.

So, this chapter focuses on the apparatuses and policies that paved the way of unending deindustrialization in the basin. Throughout the chapter, I intend to demonstrate that the logic behind those means is exclusively constituted according to the neoliberal order that primarily aims to replace the state's active involvement in the coal production with the profitability of private enterprise. For that reason, I claim that the politics of deindustrialization, which has evolved over decades, converged on two goals: 1) to consistently reduce the number of workers and coal production within the state company, and 2) to prepare the conditions for private

enterprise by restructuring the mode of coal production. While briefly investigating apparatuses of deindustrialization, I also present firsthand accounts of how the working people interpret and are affected by these changes in the industrial order.

The term deindustrialization¹¹ appeared as a heavy-hearted political category in the late 1970s for firstly addressing capital flight and plant closings in the most industrialized countries (Bluestone and Harrison, 1982). In their classic study, Bluestone and Harrison (1982, p. 6) defined deindustrialization as "a widespread, systematic disinvestment in the nation's basic productive capacity" that refers to a shift in investment from productive industries to the unproductive speculations and foreign investment. According to their findings, in the United States, approximately 30 million jobs were lost throughout the 1970s as a direct result of capital flight, plant closures, and relocations of industries into more profitable and less unionized areas (1982, p. 35). Although their definition is highly reliant on the extensive use of statistical data, they are nonetheless able to identify the social costs of the deindustrialization for the working-class communities due to the structural and economic transformation in the United States. Their primary identification of the income loss, unemployment, the dispossession of working-class families, and the physical and mental trauma of job losses became the main objects of research for the social scientists.

Due to the reorganization of capitalism and relocation of productive industries to other geographies, the topic of deindustrialization gained a particular

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¹¹ As historian Christopher Johnson (2002, p. 7) reminds that the usage of the term is not a recent phenomenon. In its earlier meanings, the Nazis publicly used the deindustrialization referring to an active process of eliminating the industrial infrastructure of the regions and countries. In the immediate aftermath of the Second World War, this time, Allies picked up and used it for describing the possible retribution against Germany. However, today, the term is used for as explanation for economic transformation that happened in the 1970s and 1980s and it is extensively discussed in response to those catastrophic events (High, 2013, p. 994).

importance among social scientists to demonstrate the permanent effects of plant and factory closures on the working communities. For example, in the edited book of Beyond the Ruins: The Cultural Meaning of Deindustrialization (Cowie and Bluestone, 2003), writers seek to interrogate the complicated and geographically diverse social histories of deindustrialization. They claim that even though the struggle of preserving the industries have been lost in many places, the legacy of deindustrialization remained (2003, p. 6). In parallel with that claim, by shifting the discussion from economic causes of deindustrialization, they intend to multiply the cultural meanings of deindustrialization. They write "deindustrialization can mean many varied things" but "only a small part of these meanings emerges from the loss of manufacturing employment. The broader meanings emerge from de-linking of investment and place, the deinstutionalization of labor relations machinery, deurbanization (and new forms of urbanization), and perhaps even the loosening of the connection between identity and work." (2003, p. 15). Their intention to broaden the meanings of deindustrialization helped me in understanding what is happening in the Zonguldak Coal Basin. It is because, as much as the basin went through a similar process as it is laid down in the book, it still crucially diverges from it. First of all, the struggle over preserving the coalfields has not been over. The battle is not lost for many people in the basin due to the not total closure of mines. In a sense, the basin did not come to the point of "the end of the line" (Dudley, 1994). However, that also means the process of deindustrialization, the continuous decline in the city's population, coal production, and the total workforce, continues to effect the basin for nearly forty years. So, in that context, I come up with a conceptualization of unending deindustrialization.

In the case of mining studies, some scholars tend to frame the closure processes as an end for both mining corporations and communities. For example, Ricardo Godoy (1985, p. 199) defines the mining process as three major logical, interrelated, and sequential phases which are exploration, development, and production. Also, Jerry Jacka (2018), in his review of the anthropology of mining, does not include the mining closure processes and its afterlife in the agenda of further research programs for the anthropology of mining. Furthermore, we might assert that social movements and the media do not promote voices that try to set political demands about mine closures in the public sphere. In fact, the existing political demands are mostly comprised of environmental protection (before the opening of a pit) and the enhancement of working conditions (during the process of production). Up until the 1990s, the question of what happens to the geographies and the communities in the aftermath has mostly remained unanswered. In the late 1990s, corporations started to engage in corporate social responsibility programs to refine the image of the mining industry (Rajak, 2011). Through the application of several policies, the corporations and governments searched for ways of making the industry "sustainable" (Rajak, 2011; Jacka, 2018). One of the key themes for making a sustainable industry becomes the integration of rehabilitation programs and remediation practices in the mine closing process. Today, the global and national legislations oblige the companies to enact rehabilitation practices that encompass not only physical but also social enhancement of the landscape. Even though the implementation of these programs makes the companies and governments more responsible, it still does not provide fruitful and empirical answers on the subject of the afterlife of a mine in practice.

David Robertson (2010) asserts that historic mining landscapes usually suffer from acid mine drainage, acidic soils, and erosion and sedimentation problems along with the social problems of conditions of blight, lawlessness, depression, and fatalism. In addition to those existential crises, scholars demonstrate that the promise of development and prosperity for mining regions "has frequently delivered only ephemeral benefits, while leaving behind lingering social and environmental problems" (Keeling and Sandlos 2015, p. 4). So, without relying on the linear understanding of the "mining imaginary" which equates the closure with the end, Scott Midgley (2015, p. 294) explains how "the communities, economies, and environments continue to be negotiated and transformed by numerous actors and reclamation practices". He emphasizes that the history of a mine resurfaces full of contestations and the already transformed landscape is remade during the mine closure process (2015, p. 293-315). Sarah Gordon, also, pays great attention to the resurfacing of conflictual histories and narratives between the indigenous community and Canadian state officials during the mine closure in Déline (2015, p. 59-87). In the field, she encounters that the indigenous people contest the formal history of Canada on the topic of origins of the ore. Moreover, during the mine closure process, she highlights the erasion of Aboriginal sovereignty and cosmology in order to cheapen the cost of the remediation practices. Therefore, she concludes that these varied stories about the mine's deceptive beginnings, controversial existence, and devastating outcomes, while assessing the impacts of mining and determining the scope of remediation policies, they also stand as the broader experience of colonialism (2015, p. 62).

Although the scholarship on deindustrialization theoretically and thematically extended since the 1970s, its geographic limitations have remained in the events that

happened in the Global North (Schindler et al, 2020). As High, MacKinnon, and Perchard (2017, p. 6) noted in their edited publication, most of the time, the US experience of deindustrialization dominated the international field of research. However, this does not mean that the Global South did not face the effects of deindustrialization per se. In the *Expectations of Modernity*, anthropologist James Ferguson (1999) traces the social and economic costs deindustrialization process in Zambia by exploring the experiences of the mineworkers in the Copperbelt region. Aside from his theoretical contributions which offer an analytical tool for criticizing the modernist approach to urbanization and development, his ethnographic account provides significant insights into the experience of deindustrialization in the Third World country. Similarly, with the Zonguldak Coal Basin, the Copperbelt region is considered as Zambia's frontier that is believed to spark a burst of industrial development. Even, throughout the 1960s and 1970s, thanks to the relatively high price of copper exportation, Zambia became "a 'middle-income country', with excellent prospects for 'full' industrialization and even ultimate admission to the ranks of the 'developed' world" (Ferguson, 1999). However, in the 1980s, or more precisely, as a result of the implementation of neoliberal policies, the prospects of economic advancement were reversely turned to consistent economic decline and the aspirations of industrial progress had been replaced by deindustrialization. Relying on that contextual transformation of Zambia, Ferguson investigates how a specific type of disconnection is articulated for Zambian mineworkers in the process of reorganization of the world economy. By cleverly asserting that "disconnection, like connection, implies a relation and not the absence of a relation", he underlines the active engagement and relation of political arrangements in the process of being disconnected.

Similar to Zambia's Copperfield and mineworkers, the Zonguldak Coal Basin is also being actively disconnected from its ties with factories, coal production, and its role as a basin where the dreams of progress are cultivated. It would be an unfair simplification to claim that the basin has been experiencing a type of deindustrialization since its coal production costs could not compete with the market prices. As we will see throughout the chapter, neither the experience of deindustrialization nor the cost of production is the result of natural and inevitable causes. Rather, the experience of Zonguldak's deindustrialization, in relation to the mode coal of production, is deliberately articulated with several apparatus without applying any protective legislation for mine workers in the basin. Instead of creating alternative job opportunities or preparing the conditions for exit from coal production, the state left the basin and its residents alone to deal with the destructive effects of deindustrialization. Therefore, even if the basin did not face the shock of entire mine closure and abandonment, workers had to bear a greater weight as a result of disinvestment, compulsory retirement, and privatization policies.

4.1 Disinvestment

As briefly mentioned in the previous chapter, the beginning of the 1980s marked a significant rupture in the state's hard coal production policy. The economic growth plan was reorganized around the pillars of minimizing the government's active engagement in the economy and promoting competitive free market conditions, thanks to the IMF's structural adjustment programs. Soon enough, the neoliberal policies manifested their transformative effects in the coal basin where there has been a thriving social and cultural life are that has been supported by the large public investments in relation to the coal mining. Although working conditions were tough,

lethal, and exploitative (Nichols and Kahveci, 1994), especially for underground miners, workers could benefit from a wide range of social services and the existence of a relatively powerful union during the import-substitution industrialization era. In that period, the coal basin, absorbing two state-owned giant iron-steel factories in Karabük and Ereğli within its borders, was the industrial hub of Turkey, largely responsible for the state-led developmentalism. Within that context, the state did not hesitate to make either social or production-oriented investments in order to maintain the flow of coal, which, back then, was the main fuel of industry and economic prosperity, and this situation even aided in the formation of a working-class identity that views the state as a protective father figure (Yılmaz, 2019, p. 112). That paternalistic relationship, however, began to deteriorate when neoliberal policies were ruthlessly and quickly implemented to restructure the coal sector on the basis of free-market rationale which also undermined the vibrancy of social life woven around coal mining.

During our interview, Mehdi was one of the people who directly referenced that transition by relating it to the image of Turgut Özal, a prominent neoliberal figure of Turkey, saying:

The objective of Özal was to extend the global neoliberal movement into Turkey. What exactly is that? The state is not a father figure. That was something Özal taught me. By slamming our heads to the wall, we learned a few things. I was surprised; I said, really, the state is not the father. It's true indeed. Because do you know what happens when the state becomes the father? You don't have to do anything. You just say give me more dad. There is no such thing as progress if you eat what the father provides you and do what he shows you. There is no competition. You don't have a need for self-improvement. In any case, you expect the state to look after you. Özal destroyed that understanding. While destroying it, alas, Özal also wrecked many other beautiful things. (Appendix B, 11).

Despite the fact that his partial appreciation can be linked to his position as a business owner and can be critically elaborated on his misrepresentation of the stateworker relationship, yet I would like to draw our attention to his violent portrayal of that transitional process. Mehdi was describing the changing perception of the state as a result of the violent process of slamming one's head to the wall. The process of learning the appropriate role of the state, according to him, was not dependent on any kind of agreement or bargain, albeit he eventually came to appreciate the results. Rather, it could only be possible by the pure act of unilateral violence. More intriguingly, his statement of a surprise after the aggressive teaching alluded to a condition of shock and paralysis before reaching a proper conclusion. Whether intentionally or not, his narrative was resembling one of the case studies that Naomi Klein (2007) narrates in her comprehensive book the *Shock Doctrine*. In that book, she delves into the subject of how different countries went through neoliberalization processes and why deregulated capitalism succeeded in most of the countries. Similar to Mehdi's argument, she claims that, contrary to the official narrative of capitalism, which is based on peaceful themes about freedom and competition of ideas, the triumph is always achieved through the use of brutal forms of violence and the shock that it generates among the societies.

The path of deindustrialization is also opened by the use of brutal forms of violence that directly channeled for reducing mine workers' wages. In the course of the military coup of 1980, the state and union were negotiating about collective labor agreement in order to increase the wages. The military government, in addition to mass incarceration, death penalties, torture, and the shutdown of political parties, also suspended the collective bargaining processes and the right to strike in general. Negotiations, strikes, and lockouts between opposing parties to determine wage prices were halted after the coup. Instead, the military government established the High Council of Arbitration, a body of institution that acted as a control mechanism

over the labor market by resolving conflicts between employees and employers (Güler, 2019, p. 517). The legislative arrangement on collective labor agreements attributed sheer authority to the Council and provided unfair power for the reinstatement of expired collective labor agreements in the event of a social emergency. Without recognizing any kind of opposition or demand for negotiations, the Council's decisions were seen as absolute and were frequently enacted against the interests of the unions and social rights (Ketenci, 1985, p. 169).

In the memories of the Zonguldak coal miners, the coup had a special connotation, relating it with the starting point of decline in the basin. Although the decline in the mining industry began in the late 1970s, the year 1980 was the turning point for the industry and the regional economy (Şengül and Aytekin, 2012, p. 168). The coup suspended negotiations on a collective labor agreement, which could only be completed by a Council resolution. Turhan Oral (1997, p. 52), who was working in the union at the time and wrote a book on the events leading up to the Great Miners' Strike, described that decision as a punishment imposed on the miners since their wages had fallen below the national average wage level. Similarly, Veli stated that:

The coup period has brought us to this stage in our lives as miners. When the coup happened, we were in the middle of collective bargaining, but the junta administration refused to make us to sign any contracts. At the time, we were not given a raise. We received no raise! Our pay has slipped below the federal minimum wage. So, it was bad. Until the 1980s, this was not the case. People didn't seem to mind the salaries they were getting. (Appendix B, 12)

It was bad, indeed. The Council decision meant a twenty percent reduction in real wages and more importantly, it also set the price bar at a very low level for further negotiations. Alongside the sharp decrease in wages, the decision also stipulated to reduce in additional allowance payments, narrowing the scope of extraordinary

permissions, limiting the Turkish Hard Coal Institution's training and occupational safety programs, and abolishing the coal aid to the workers (ZMİS, 1980).

These direct attacks on wages and social rights through cutting public investments could only be enacted by the establishment of military rule over the country. Up until the late 1980s, the governments of Turkey found a suitable condition to adjust neoliberal policies in favor of private capital without encountering significant organized opposition. In that context, in addition to the repression of wages, disinvestment policy is also applied to the state-owned companies which prevented them to modernize their infrastructure. During that era, unable to open new tunnels at the deep grades, the TTK's production inevitably had to drop while its production costs were increasing due to the extensive use of old machinery. Ali, who was working in the company's investment affairs department at the time, described their predicament as follows:

For 13 years, I was in charge of investment office. During that time, we deducted the cost of the meter for opening a tunnel. Approximately, one meter of tunnel requires 32 salaries to drive. This equated to at least 8 to 12 workers, which corresponds to their daily wages. For example, if I say 1000 liras as the cost of one meter of tunnel and if the gallery you drive is 300 meters, you must allocate 300 thousand liras. But the state was telling us that you had been allocated 150 thousand liras allowance. You have no chance to reach that 300-meter gallery goal with 150 thousand liras. OK? This is the first thing. Second, what occurred when the number of workers shrank? While we were calculating 32 salaries per meter, we began to calculate after a while and concluded that this gallery would be driven with 18 wages. It was not, however, driven. This is not how it works. So, it didn't work, no matter how hard we tried. As a result, we shrank and shrank. As we shrank, the city shrank in parallel. (Appendix B, 13).

So, it would not be wrong to claim that disinvestment paved the way for deindustrialization in the basin. This deliberate approach defunctionalized coal production activities, either in the form of wage repression or eliminating the necessary direct investments. Thus, since the 1980s, the company could never reach its production goals. However, as time passed, the company gained another function

rather than increasing the coal production. The company operated as a political tool for politicians during election periods in an area where the state did not make any investments in the coal sector or create new job possibilities. During election seasons, politicians began to offer residents of the basin new jobs in the company, but once the election was over, and even if new workers were recruited, many others were forced to retire as well. Therefore, the cycle of deindustrialization could not be broken ever since.

4.2 The compulsory retirement policy

Despite the promises of neoliberal ideology, Turkey's economy continued to suffer from high-rate inflation, debt, and current deficit crises in the early 1990s. Without solving imbalances within the macroeconomic indicators, structural adjustment programs brought out more similar programs in order to achieve a stable national economy. The huge amount of external loans and wage repressions in the country did not help to manage long-term stabilization, and crises always resurfaced with new kinds of economic shock. It would not be wrong to claim that, while state authorities, economic experts, and international agencies were not resourceful enough to salvage the crises of capitalism, they were adept at governing those crises, allocating costs to a specific social class, and legitimizing their actions. So, one more time, the cost of the 1990s crises landed on the state-owned enterprises. Mostly driven by ideological intentions, the state authorities tried to legitimize their actions by following two arguments: 1) In comparison to private firms, public enterprises have lesser effectiveness and efficiency, and 2) The government's involvement in the economy through public enterprises wreaks havoc on macroeconomic stability (Boratav, 1994, p. 41). In sum, particularly in 1993 and 1994, two political arrangements,

compulsory retirement policy and privatization of state-owned enterprises, emerged as magical remedies for economic stabilization as a result of lingering economic crises.

The compulsory retirement policy was put into practice in 1993 with the amendments made to the State Retirement Fund Law (Arıcı, 1994, p. 11). According to that legislation, institutions can retire people ex officio who have served for thirty years with a retirement pension, regardless of their age (Arıcı, 1994, p. 11). By depending on that, the government primarily aimed to reduce its economic activity within its own enterprises unless it could not completely abandon it. Therefore, the compulsory retirement project, just like the disinvestment strategy, acted as an effective but insidious apparatus that shaped the way of the deindustrialization process in the basin. Following the Great Strike, the state authorities reluctantly admitted that complete abandonment, either through privatization or total mine closure, was not conceivable without facing strong opposition. In fact, as a consequence of cooperation between trade unions, civil society organizations, and local politicians, the scope of opposition was broadened immediately after the general strike by organizing the congress and forming the Zonguldak Democracy Platform (Oral, 1997, p. 173). Moreover, after a thorough examination of the current state of the coal basin in 1994, a significant report was published that outlined a detailed method for increasing coal production without the need for privatization, downsizing, or closure (TTK, 1995). However, these efforts could partially retard what was inevitable. It is simply because if one carefully pays attention to the core problem of the conflict, then it becomes clearer why these opposing poles could not be coming to an agreement. On the one hand, there was a body of representative of miners who acknowledged the necessity for structural rehabilitation of the state

company in order to achieve a stable and profitable mining operation. Nonetheless, their proposition hinged on increasing the coal production by making necessary investments, modernizing technological equipment and infrastructure, and recruiting more workers in the basin. By doing that, they hoped to overcome the loss cycle and create a robust and competitive state-owned enterprise in the world coal market. On the other hand, for the central government, such a resolution was not acceptable from the very beginning. Rather than investing more, the government would prefer to abandon the mines as quickly as possible, in line with neoliberal doctrines. Increasing the public spending, in the eyes of state authorities, meant more inflation and debt, thus their strategies concentrated on finding methods to reduce existing expenditures rather than increasing them. So, the compulsory retirement policy was ideal for the central government, which was concerned about staggering opposition while also wishing to drastically reduce its activities. Between 1993 and 1999, the company was able to retire approximately half of its workforce with the help of this program (Zaman, 2012, p. 363). More importantly, these retiring workers were largely underground miners, who came from the mines' production sphere, so their retirement caused the rate of production to drop even further.

Veli was one of the tens of thousands of miners who were forced to retire in 1995. He was as furious as heartbroken when he told me the story of his retirement. "If", he said, "we could achieve our demands during the Great Strike, they would not be able to hurl us into the streets". He enmeshed the stories job loss with the sense of loss in the strike and continued as:

The majority of the workers returned home crying after that march. We should have returned by dancing and celebrating our triumph. Even while I don't want to discredit the march since I believe it is significant in working-class history, it was also the place where our noses were rubbed. TTK, for example, shrunk after that date, many fields of operation were privatized, but we were unable to organize any substantial action. Because that was the top

point. They could not reduce the TTK to this point if we were able to foster the sensation of triumph among the workers. They could not reduce the number of workers or close several pits and workplaces. (Appendix B, 14).

After they returned from the march, he told me, the rumors about the mass layoffs had already circulated. Even for providing justification for mass layoffs, it was claimed that new and young unemployed workers would be hired which intelligibly put additional social pressure on those who had reached retirement age. However, one day, Veli and many of his friends were told not to come to work the next day, although no one had been hired. He does not describe that as retirement, instead for him it was an obvious act of discharge. He told me:

I was planning to work for nearly ten more years. I retired when I was 42 years old. I say retired but in reality, I was discharged. The people retire only if they retire voluntarily. I had many more things to do. But they discharged me all of a sudden. Fortunately, we had a garden here, and despite a lot of challenges, we were able to keep going and make a living out of that incident. However, many people had little school-aged children... (Appendix B, 15).

Many of those people found themselves either in the service sector or continued to work in the mines, albeit in a more precarious way at the private or illegal pits. Those people are forced to retire without any social assistance. Even, in order to prevent social discontent towards the policy, workers are gradually retired. "Month by month we are retired", Veli said, "in order not to cause resentments". Moreover, this act of compulsory retirement also caused serious damage to the power of the union in the basin. It is simply because it prepared the condition of retirement, especially for those who politically organized the strike. As Veli states:

Let me tell you this, our generation was composed of people who were largely leftist. But also, it was coming to the end of our working life. That's why they took advantage of this and forced to retire us. So, they hoped to prevent to occur organized protests. Thus, our ties with younger generations broke. Since then, organizing has been more difficult. (Appendix B, 16).

He was right. Since then, unionizing has been increasingly difficult in the basin.

However, workers' organization was disrupted not only as a result of the dissolving

of intergenerational bonds, but equally as a result of the changing mode of coal production.

4.3 Privatization

Apart from these other two apparatuses, privatization of mine sites, as well as other state-owned companies such as steel and iron factories in the basin, was the ultimate goal for the central government since the beginning of 1980. In the first years of Özal's government, the fever of privatization was utilized against mineworkers to repress wage prices by threatening them with the removal of the state capital from mining ventures. However, soon enough these threats started to actualize themselves in the form of mining royalty licenses and privatization of iron and steel factories. Along with its role as the authorized operator in the basin, TTK began giving mining permits for private capital to rent mining areas that the company was not economically interested in. However, many people whom I interviewed contested that idea as highlighting the misusages of mining licenses. According to them, the company granted licenses without conducting a serious investigation about the coal deposits, so they interpreted that as a direct wealth transfer from the state to private capital. Even if the accusations of misusage of mining permits are set aside, it should be noted that the privatization fundamentally altered the basin's characteristics by creating a more ruthless accumulation regime, more precarious and de-unionized working conditions, and fewer social spaces.

A former miner Kadir Tuncer (1998, p. 169), in his book about the history of the Zonguldak Coal Basin, compares the privatization process that began in the 1990s to the period of colonization of the Americas which is identified with the motto of "gold rush". According to him, in the fields they rented from the TTK,

newly established private mining companies developed a plundering system based on the waste of resources, destruction of the environment, exploitation of precarious and de-unionized workers, and the use of cheap but dangerous discarded tools. Ironically, the mining royalty system was justified and subsequently adopted in order to prevent the mining sector from devolving into that kind of unregulated plundering regime. In the 1970s, the basin witnessed the rise of illegal mining activities as a severe problem when its output rates hit the level of 300.000 tons (Zaman, 2012, p. 399). The state's policies that deliberately aimed to reduce the coal production and workers numbers prepared the conditions for spawning an informal mining sector in the basin (Yılmaz 2019, p. 160). With the application of the rent system in the basin, at least the authorities expected to register illegal pits by distributing the mining royalty licenses. Furthermore, by creating additional employment independent from government investments, these private operators functioned to alleviate the discontent and political instability in the region (Yılmaz, 2019, p. 138). However, according to Evrim Yılmaz (2019), rather than solving the problem of illicit mining, privatization facilitated the constitution of a symbiotic relationship between formal and informal mining by providing a legal appearance for illegal operators through a subcontracting structure.

Also, privatization entirely altered the working conditions in the mines. Prior to that reorganization of production, the TTK's production strategy relied on high rates of employment because the complex and tortured structure of the basin's geology prevented technological and mechanical extraction. Therefore, the state company depended on cheap but abundant number of workers in order to supply the nation's coal needs. Even during the war times, the basin had experienced a compulsory working system. However, when the importance of production costs

became a prominent factor in production as a result of structural adjustment programs, the basin's employment strategy has been changed. Private and illegal mining pits, in particular, operate in situations where there are few workers who have to work long hours, low wages, and minimal safety equipment. In one of Evrim Yılmaz's informants perfectly explained this situation as:

We have 2-3 people do the work that should be done by 10 people in underground. Everyone has to work more quickly than he does. When the worker is sent underground, operator says he wants 5 tons of coal each person. To be paid, you must take it out within that time frame. In other words, health and safety are put on the back burner, and all they care about is profit... Nothing is on paper; there is no first aid, no evacuation crew. The state has passed laws, but no one is responsible for enforcing them (Yılmaz, 2019, p. 143-144).

The region's lack of job possibilities encourages the establishment reserve army of labor that secures the perpetuation of the exploitative regime. Nazım, who worked in several private pits, told me that "the operators do not care if one accepts their proposition or not. They believe to easily find hundreds of workers in any case.". In addition to the precarity of job and health security, these workers have to deal with the atomization of workers in their workplace. From the very beginning, private operators prevented unionizing workers, claiming that they were already paying both the insurance and wages which according to them rendered the existence of union meaningless. In fact, several attempts at unionization resulted in discharging of those workers. For example, Nazım was one of the miners who fought for the right to form a union while working in a private operation. "It was challenging in the private sector," he remarked, not knowing how to convey it to someone who has never worked in a mine. Then, reluctantly he continued: "We made a strike. We closed ourselves to the pit. And then, went to the public notary and enrolled to the union. We were 500 people at that time. But the boss threatened us". Later, these threats led

to his discharge from work, and they were involved in litigation in which nobody knows when the outcome will be resulted.

Overall, privatization enabled at least three major structural transformations:

1) by reducing the labor costs of the mine operation, it provided the conditions of maintenance of mining and became the source of employment which also filled the deficit of the state; 2) by making the connection between formal and informal ways of mining, it could create a profitable sector for private entrepreneurs which also prevented the total closure of mines; 3) by altering the working conditions at the expense of the lives and health of mineworkers, the hard coal sector in the basin could reinvent itself. Each transformation put an extra burden on the mineworkers. Although the mining operations never came to an end and created a sudden shock and abandonment in the basin, workers found themselves in a more dangerous and exploitative working environment.

4.4 Untold story of the capitalization of deindustrialization

On my very first days in the fieldwork, Ömer took me to the Mine Museum in Zonguldak. Prior to arriving in Zonguldak, I contacted him through his son and informed him about my intention of writing a thesis on the deindustrialization of the basin, focusing on how the process of deindustrialization is organized and how miners and their families have been affected by it. So, it is understandable that he thought that visiting the museum and learning about the basin's mining history would be an appropriate way to start the investigation. Similarly, I, also, reserved my first days for getting familiar with the city, its center, old-mining neighborhoods, and, if possible, seeing the places where mining operations are currently performed. Thus, we decided to visit the museum.

At home, I have already been engaged in the literature about the close relationship between deindustrialization and museums. It is a common practice in many deindustrialized places to transform defunct factories, mills, and plants into museums, which reinvigorate the area and generate new jobs by narrating their history. Mike Wallace (1987, p. 10) defines the creation of a museum as "a *response* by a community to the collapse of its manufacturing base". However, without romanticizing such a response, Wallace elaborately insists on the importance of which stories those museums are telling and which they are not throughout his article. Even yet, he claims that most of the industrial museums he visited only tangentially deal with the history of deindustrialization, reorganization of capitalism, and the questions of why and where these factories were left in the first place. So, I visited the Mine Museum keeping those important points in my mind.

The museum is primarily dedicated to displaying the history of coal mining, which has left its imprint throughout the basin. Visitors can see how coal mining developed through numerous historical stages of diverse forms of capital and administrations, investments, tragic accidents, and, most importantly, the existence of hard-working coal miners in the foyer area. At first glance, there was nothing to contradict with, and I even learned many historical details about the basin in there. Of course, if one closely examines the inscribed message of the museum, they can see the appreciation of the paternalistic relationship of the nationalization era, or they can wonder why thousands of people had to die during coal mining. Though, apart from these crucial points, the museum's ending story was what struck me the most. The museum was finishing its narration by the Great Miners' Strike as saying:

After 1985, as per collective contract, allocation of subsistence allowance and transport costs to the workers, who were not staying in dorms; besides increasing development of facilities of transport to the villages allowed daily transport of workers, and so the number of workers staying in the pavyon has

decreased. The fact that social rights, which used to be provided by the social Care Service during previous years, turned to cash, made the social facilities for workers non-functional (Cited from museum's text).

Despite the fact that the text does not directly explain what occurred during the strike, it can be seen as preparing striking conditions in terms of defunctionalization of social facilities and the transformation of social rights into economic assets. However, the museum does not have anything to say about what happened next. The story ends. It ends by hinting at the implications of deindustrialization but never delves into that. There has been a void for nearly three decades. The story of decline is unwritten at the museum but it is told and even dreadfully alive in the basin today.

Unlike the museum's installation, people were eager to speak about what have happened after the strike. As Veli said even though the strike was the top point for the miners, it was not the ending story. In fact, the phase of ending was never finalized in the basin. It is diffused for decades. Almost all of my informants associated this process with the sense of abjection, rot, and leaving the basin to die. For example, Mehdi describes as:

They were unable either to close the mines or to make more investment. They abandoned to it to its fate. The model its applied in here was the model of rotting itself. There was no guidance or investment. No new workers were hired, too. In other words, a process was implemented so that the company would dissolve itself over time. (Appendix B, 17).

Also, one time, while we were driving to an interview, Ömer said to me "Zonguldak is searching for its future for forty years. If you look out in the city, you can always see an event as calling like that. But no one still knows yet. Will it be industry, tourism, or what?". His statement remained with me up to this day. How could a basin's future not be planned despite all of these efforts over forty years? Why one geography would leave to its own fate to rot? When I carefully look out not to those efforts but practices of reconfiguration, it becomes clearer that some actors are

enormously making profits out of this situation. Not planning enables transferring of wealth to the small number of private operators. The series of disinvestment, decreasing of coal workers, and privatization generated a sense of abandonment to the workers, however, contrarily local private operators profited from that process by filling the gap of the state.

Throughout the 1990s, the politics of deindustrialization is constituted in the name of removal of the state from the economy. While policies and apparatuses adopted in the basin over the decades reorganized coal production into a profitable enterprise for a small number of private operators, they also generated a sense of desperation and hopelessness for many workers. So, the content of deindustrialization will become more meaningful if one traces who benefited from these transformations. On the one hand, there are small numbers of private operators who started to replace the role of the state and cherished the possibility of making enormous profits by renting the mining licenses or constructing the coal-fired thermal power plants. Unlike the state operations, those private entrepreneurs do not primarily aim to extract as much coal as possible in order to fuel the national economy or provide stable jobs in the region. Instead, their major goal depends on the reduction of the coal production costs, they have emerged as key players in a new production model that will work in harmony with the deindustrialization program of the state. Workers and residents, on the other hand, found themselves in a situation where they were experiencing constant loss of the possibility of stable jobs, social rights, social places, and migration of their loved ones. So, the conflictual senses of cherishment and loss arose as the result of the reconfiguration of production. In that sense, I claim that the policies and apparatuses of deindustrialization acted not as a disentanglement of production or a total abandonment but it prepared the conditions

of neoliberal wealth accumulation in the hands of small private operators. Therefore, in reality, whether it is acknowledged or not, the basin continues to write its history through coal production. The history of neoliberalism.

CHAPTER 5

CONCLUSION

In this thesis, I tried to investigate how the process of deindustrialization is made in the Zonguldak Coal Basin. Throughout the thesis, I intend to demonstrate that the process of deindustrialization in the basin was largely paved by changes in the macroeconomic structure and the role of coal in the national economy, as well as the articulation of new energy supplies and international programs, and the implementation of several policies aimed at reducing both production and the number of workers without taking into account the social life that thrived alongside mining activities or providing a viable alternative. So, rather than natural factors, political arrangements, economic reevaluations, and calculation methodologies have shaped the content and context of deindustrialization in the basin at each stage. Since the 1980s, similar to the other deindustrialized geographies, the basin has witnessed a steady decline in coal production and the number of workforces which meant more than simply job loss in a context where the coal extraction was the only source of the regional economy. Despite the fact that the central government was able to replace the Zonguldak coal with other energy sources, the basin, on the other hand, was unable to find the necessary investment to rebuild its regional economy outside of coal and suffered the consequences of losing its major economic activity. The consistent decline of the coal sector in the basin wreaked havoc on the social structure, revealing the phenomenon of permanent un(der)employment, shifting migration patterns, dissolving social spaces and rights, and creating a deunionized and precarious working conditions.

In order to investigate this long-term but the unfinished phase of deindustrialization, I conducted fieldwork in Zonguldak, visiting old mining neighborhoods, mining sites, museums, and coffee shops, as well as making in-depth interviews with 14 people from various backgrounds who have firsthand experience with these processes. During my first days, moving from one interview to the next gave me a sense of surprise. Whether in having quick chats at coffee shops or during the long hours of interviews, each person contradicted the simple economic fact of profit and loss account of the state-owned enterprise. Even if the variety of contradictions is multiplied by each interview, the core belief about misperception of economic loss or the possibility of otherworldly conceptualizing loss remained with me. People were eager to tell me that the company's economic loss was not seen as an issue to be solved, but rather as a legitimizing tool for enacting the deindustrialization process. Keeping this distinction in my mind, throughout the fieldwork, I pursued the following questions: What has changed? Which material and symbolic arrangements made this kind of economic calculation possible and legitimate? How did the state authorities, willingly or unwillingly, have to orient their attention towards the loss of the company? And by doing so, how the meaning of the loss has been changed? Finally, but most crucially, which groups had to carry the suffering effects of the loss as a result of the configuration of the deindustrialization?

This thesis is divided into three chapters to examine the making of the deindustrialization of the Zonguldak Coal Basin: While the first chapter focuses on the basin's industrialization process following the discovery of coal in the mid-19th century, the second part explores the introduction of a new form of calculation, which I refer to as neoliberal calculation, and it answers how it has changed the

conditions of the coal sector and provided legitimacy for the deindustrialization process. Finally, the third chapter delves into the apparatuses and policies of deindustrialization, as well as its consequences, and tries to picture a specific case particular to the basin. As each chapter is read in relation to one another, I hope that the unnatural history of deindustrialization and its uneven characteristics will become more apparent. In that regard, following the common argument of deindustrialization studies (Bluestone and Harrison, 1982; High, 2013), this thesis contributes to the fact that "deindustrialization does not just happen" but is always the result of conscious decisions, consistent and deliberate policies, and conflictual encounters.

Furthermore, I wish to avoid nostalgic imagery of the past by telling the longterm process of industrialization according to the single logic of coal extraction. Since the mid-19th century, the Coal Basin has been imagined and materialized as a resource frontier for both the Ottoman Empire and the Turkish Republic, both of which relied on the exploitation of cheap and plentiful labor. As Mehdi rightfully said (mentioned in the first chapter), the basin is never envisioned to become a city but a large construction site in which all planning, labor regime, and social activities are organized for sustaining the supply of coal. Most of the time, the operations continued in spite of deadly accidents and even it is secured by the compulsory work regimes. The basin's and its inhabitants' energy are directly shaped by and channeled for the necessity of state politics, either fueling the war industry or the national economy per se, in order to achieve abundant, uninterrupted, and cost-efficient coal channels. Yet, even in that exploitative and deadly environment, mineworkers have been able to form a sense of community and life experiences around coal mining and struggled for them when the wave of deindustrialization came to threaten that very communal existence. So, it is worth mentioning that this thesis while acknowledging

unequal and exploitative characteristics of the past, it also highlights the importance of discussing what has been lost without directly criticizing those attempts as nostalgic interpretations. It is because, this thesis, just like people whom I interviewed, tries to not silence the past or restore it in an ahistorical manner, but interrogates the loss by revealing the process of how it happened, how the miners and all inhabitants resisted, and who was the responsible for the loss.

Thirdly, this thesis aims to contribute to the deindustrialization literature by demonstrating that in the case of Zonguldak, the concept of deindustrialization does not imply coming to an end. In most studies, the concept is used to explain situations when the factories, mills, or mines are relocated, closed, or abandoned. Scholars tend to explore the devastating impacts on communities and the dissolution of social ties that occurred as a result of deindustrialization by taking total closures as a starting point. The term deindustrialization itself is frequently associated with the disintegration of relations of production, living in the ruins with no job opportunities, and a sense of hopelessness. However, the Zonguldak Coal Basin did not follow the normative pattern of deindustrialization. In fact, even in its downsized form, the local coal industry remains one of the most important sectors for men in the region to find a job. Yet, today, the working conditions in the mines and the social life that weaved around the mining drastically changed by the deindustrialization process. Now, workers have to go to the mines with less social security and rights despite long working hours in a more competitive environment, due to the transformation of the mode of production, which articulates private and illegal mining activities alongside the state company. So, the deindustrialization brought up reconfiguration of production rather than total closure of mines. Thus, while the state gradually and consistently has been able to dispose of its operations in the basin, it also arranged a

place where it does not require to make the necessary investments in order to establish new job opportunities. However, the basin's long-term deindustrialization policy, which was characterized by a refusal to invest, has not only worsened working conditions but has also failed to prevent the city from shrinking. Despite the tremendous efforts for searching the future of Zonguldak for forty years, the basin is still experiencing the dire phenomena of unemployment and emigration to other places in order to find decent jobs without creating an alternative path. Therefore, in this thesis, I describe Zonguldak's case as deindustrialization that never ends.

Unfortunately, a thesis may not be able to fully cover the subject it is researching for various reasons. This is undoubtedly relevant to this thesis. However, rather than attempting to conceal these gaps, I would prefer to identify them in order to make a modest contribution to further research. First and foremost, there is an important lack of women's experience and their labor-intensive activities in this thesis, as well as in the history of the Zonguldak Coal Basin in general. This striking gap is one of the most significant obstacles to making a fair assessment. It is widely known and criticized that masculinity is the primary tool for constituting the miners' identity around the world. Yet, this information is insufficient to close the gap justly. For the case of the Zonguldak Coal Basin, several historical studies assert the emergence of the basin as a resource frontier was highly depended on strict regulation of household labor and subsistent farming for maintaining the cheap supply of labor and its reproduction. However, both the history of the basin and the mining memories do not place enough emphasis on this dependent relationship. As a result, the necessity of rewriting the feminist history of the basin may be the most crucial topic for further research.

Also, this research rarely mentions the developments after the 2000s. Although the effects of deindustrialization indeed continue to shape the social and economic life in the basin through privatization, rising rates of unemployment, and emigration, it can also contain a risk to mask the efforts of reindustrialization of the basin through planning to construct several thermal coal plants alongside the mega industrial region in Filyos Valley. Each project, alas, far from bringing good old days by providing stable jobs and social rights, even their destructive effects on the environment, farmlands, people's health, and neighborhoods could accelerate the process of decay. So, it is equally important to investigate what comes after deindustrialization and critically evaluate its effects for further research.

As a consequence, this thesis attempts to narrate the history of making deindustrialization in the Zonguldak Coal Basin. By following the life experiences of the most affected communities, I try to open up a discussion about the meanings of economic realities and how it is operated against the will of the inhabitants in the basin. Especially, after the foundation of the Turkish Republic, state authorities started to imagine Zonguldak as a strategic place where their dreams of progress and a civilized nation were cultivated as much as with the material extraction of coal. The coal economy and mining families did not just fuel the statist dreams of progress, but they also continued to shape the material and social geography of Zonguldak. Up until the 1980s, the population of the city skyrocketed, many modern architectural buildings were built, and social and cultural life was highly vibrant in the city. As a larger process of neoliberalization, the state's removal from the economy alongside the sheer marketization of the coal sector disempowered the Zonguldak coal as opposed to the other primary energy sources and prepared the material conditions of deindustrialization. The neoliberal politicians started to perceive both the

mineworkers and the basin not as a strategic place to fuel the national economy but as a burden to the public budget. Thus, since the 1980s, the central government enacted a series of policies that aimed to decrease the rate of investments, workforce, and coal production without preparing any social policies. Even though the miners responded to those attacks by organizing one of the largest strikes in Turkish labor history, they could only partially retard the process. While the basin's production capacity was decreasing step by step, no other viable sector is created to replace the coal production within the regional economy. So, the burden fell upon the mining communities one more time. Over its hundred years of history, the miners and their families had to carry the burden of both industrialization and deindustrialization.

APPENDIX A

LIST OF RESEARCH INTERVIEWS

ID	Interviewee	Place	Length
Interview 1	Ali, mid-level bureaucrat, currently works in TTK	Zonguldak	65 min
Interview 2	Elif, architect, currently works in TTK	Zonguldak	70 min
Interview 3	Ekmel, local historian	Zonguldak	150 min
Interview 4	Kamil, director of a civil society organization	Zonguldak	75 min
Interview 5	Mehdi, businessperson, member of the chamber of industry	Zonguldak	90 min
Interview 6	Melih, retired mine worker	Zonguldak	55 min
Interview 7	Mümtaz, artist, writer, and caricaturist	Zonguldak	120 min
Interview 8	Nazım, mine worker	Zonguldak	55 min
Interview 9	Nedim, trade unionist	Zonguldak	65 min
Interview 10	Ömer, retired mine worker	Zonguldak	100 min
Interview 11	Tarkan, retired trade unionist	Zonguldak	90 min
Interview 12	Haluk, retired mine worker	Zonguldak	55 min
Interview 13	Veli, retired mine worker	Zonguldak	90 min
Interview 14	Yeşim, retired trade unionist	Zonguldak	100 min

APPENDIX B

LONG QUOTES IN TURKISH

- 1. Zonguldak devlet eliyle geliştirilmedi. Kent olarak geliştirilmedi. Neden geliştirilmedi? Çünkü Zonguldak'ın altındaki kömür potansiyeli çok önemliydi. Bak çok önemliydi. Bu kömürün alınması lazımdı. O nedenle bu bölgenin, özellikle Zonguldak merkez ilçenin bir kent olarak gelişmesi hiçbir şekilde düşünülmedi. Ne zamana kadar düşünülmedi? Taa 1970lere kadar hiç düşünülmedi. 70li yıllara kadar burada bir şehirleşme bir kentleşme olacağı ve ona göre bir planlama yapılması ihtiyacı hiç göz önüne alınmadı. Burası kömür çıkarılacak, şuradan limandan yüklenecek, demiryolundan göderilecek, çalışanlar kimisi köyüne gidip gelicek, kimisi buradaki yurtlarda payvonlarda ikamet edecek, bu şekilde bir çark dönecek. Burası büyük bir şantiye olarak düşünüldü. Tamamen şantiye olarak düşünüldü.
- 2. burada şu anda günü kurtarma derdinde. Sosyoekonomik olarak bu vatandaşa burada yaşayan insana bir şey sunamadığın sürece kör topal da olsa bununla seni oyalıyor şu an. Ama sadece oyalıyor. Sen bunu daha çok daha çok sektörün içine sokabilecek alternatif kaynakları yaratma noktasında vatandaşın eline verdiği bir şey yok. Yani şu anda 3 kişiyle çalışıyorsa seçim zamanı 4 kişi olacaktır. Zaten seçim geçtikten sonra hemen 6 ay içerisinde onun aldığı kişi sayısı kadar emekli olacaktır. Yine aynı noktaya geliyoruz. Değişen bir şey olmuyor. En büyük alım 3000 kişi yapıldı, zaten 3000 kişinin alındığı yıl 2500 kişi emekli oldu bu kurumdan. Anladın mı?
- 3. Yani okullarda falan sosyalleşme gibi bir problemimiz hiçbir zaman olmadı. Yani aynı mahallenin çocukları hep beraber aynı okula gidiyorduk çünkü. Ve müthiş derecede güvende hissediyorlardı insanlar ve dolayısıyla geç saatlere kadar çoluk çocuk geç saatlere kadar herkes sokakta oynayabiliyordu... Oyun alanlarımız

- vardı. Bunu kurum yapmıştı yani. Sonra hafta sonları okul müsamereleri o sinema salonumuzda yapılırdı. Tiyatrolar oraya gelirdi.
- 4. O yıllar hala sosyal devlet ilkesinin var olduğu yıllardı. Dolayısıyla devlet sadece buradan para kazanmayı amaçlamıyordu. Bunun ötesinde sosyal de burada şey vardı. Faaliyetler vardı. Kurum buradaki TTK kurumu sadece kömür üretmiyordu. Aynı zamanda okul yapıyordu, sinema yapıyordu. İşte bunun dışında diğer insanların sosyal kültürel ihtiyaçlarına cevap verecek tesisler de yapıyordu. Üretim tesisleri kadar sosyal tesisler kültürel tesisler de yapıyordu.
- 5. Biliyorsunuz dünyanın birçok ülkesinde bu tür maden ocakları ya zarar ederler ya kafa kafaya gelirler. Böyledir yani. Özellikle bu yeraltı derinlerde kömür çıkartılan yerler böyledir. Ama kar ve zarar böyle hesap edilmez. Kar ve zarar kömürden yüzlerce şey üretiliyor Türkiye'de. Şimdi sen kömürün maliyetini işçi maliyeti ve kömürün satış fiyatını hesap ediyorsun. Kar ve zarar böyle hesap ediliyor dimi? Oysa örneğin kömür demir-çeliğe gidiyor, kömür sanayinin başka başka işlerinde kullanılıyor. Orada demir-çelikte müthiş bir kar elde ediliyor. Yani kömürün kullanıldığı alanlardaki kara da bakarak bunun hesabını yaparak zarar mı kar mı ediyorsun yani. O zaman kömürü çıkarmadığını, hiç çıkartmadığını düşün, o üretimler yapılamayacak. Oralarda kar yapılamayacak, hiç üretim yapılamayacak oralarda. Dışardan alacaksın. Alıyorlar zaten. Kar zarar hesabının böyle yapılması gerekir. O hangi alanlarda kullanılıyorsa o kullanılan alanlar ne yapıyor acaba? Örneğin bir ton kömürün fiyatını şöyle hesap edelim. 1,5 milyar-2milyara mal ediyorsan ama o bir ton kömürle bir başka şeyde kullanıldığı zaman belki ondan 15-20 milyar kazanıyorsun. Yani böyle hesap etmek gerekir. Bir böyle. Bir de onun kente ülke şeyindeki yararlarını da düşünmek gerekir. Öyle bakmak gerekir.

- 6. Şimdi o dönemlerde Türkiye'nin Almanyasıydı. Zonguldak'ın Türkiye ekonomisine çok büyük katkıları vardı. Zonguldak örneğin o yıllarda Türkiye'nin 10. büyük kentiydi. Sanayileşmiş ve hem nüfus bakımından hem de sanayileşme bakımından. Hatta sanayileşmede 6. ildi. Türkiye buradan neşet etmiştir desek yanlış olmaz.
- 7. orada artık bir virane haline gelmiş kahvehaneler vardır. İşçi kahveleri. Bizim evimiz tam onların karşısındaydı ve gece gündüz. Vardiyaları çalıştıkları için o kahvehaneler gece gündüz 24 saat neredeyse açıktır ve yüzlerce işçi vardı o kahvehanelerde. Yüzlerce işçi vardı. Küçük küçük bakkallar vardı. 2-3 ayda bir kahvelerin önünde köçek oynatırlardı. Yani insan, çok insan görürdün. Orada sürekli hikayeler dönerdi. Seyyar satıcılar gelirdi. Çok acayip şeyler satan insanlar gelirdi yani böyle garip garip. Ben böyle sürekli gözlemliyordum yani ve sürekli bir vukuatlar bir şeyler olurdu yani gece gündüz. Tekelden içki alırlardı içki içerlerdi bilmem ne falan filan. Bekçi gelirdi ya da işte maç mı olurdu şarkı mı söylerlerdi türkü mü söylerlerdi yani bir ses bir şey ve acayip kalabalık.
- 8. Bu Zonguldak kentinin her şeyi bu EKİ'ymiş, TTK'ymış. Bu EKİ'nin okulları vardı, ilkokulları vardı, bu EKİ'nin sinemaları, tenis kortları, sosyal tesisleri vardı. Bu EKİ'nin firini bile vardı, ekmek çıkıyordu. Marketi vardı. Dolayısıyla böyle bir yerdi. Her şeyi ondan sorulurdu. Mahalleler onundu. Bu kentte gördüğün camisinden tut, yoluna kadar, bilmem neyine kadar EKİ'nin demiri, çimentosu olmayan yeri yoktu. Böyleydi bu işler. Ama şimdi bunlar önce EKİ bitti, tüketildi. Peşinden buna paralel olarak bu kentin her şeyi olan kent küçülmeye başladı.
- Şimdi 90 yılında büyük yürüyüş oldu ya. Caddede yürüyüş yapıyoruz. Bak yapıyoruz. Yapıyoruz derken Ticaret Sanayi Odası'nda hem yönetimdeyim. TSO

özel sektörün temsilcisi değil mi? Yani özelleştirmeye destek olması gereken bir yapı değil mi bu? Yani öyle olması gerekmiyor mu? Özel sektörüm ben ya. Ben isterim ki devletin bütün kurumları özel olsun. O bir mantalitedir, bir mantıktır yani. Özel sektörün içinde olup da her şey devletin olsun diyorsa adam, yaav sen de bir sakatlık var kardeşim. O zaman senin işletmeni fabrikanı da devlet alsın. Böyle bir mantık olmaz. Ama bizde oldu. Ne oldu? O işçilerle beraber, Zonguldaklı insanlarla beraber TSO olarak çıktık 8-10 kişi. O korteje katıldık. Yürüyüş yapıyoruz. Yaav çelişkiye bak Öner! Çelişkiye bak! Hee Niye? Bunun bir nedeni var ama? Çünkü biz iş adamı değiliz ki. İş adamı şey, biz esnafız, biz esnaf. Dükkanımız var. TTK işçisi ne kadar çok para alırsa bizim o kadar işimize geliyor kardeşim. Hee bak. Şimdi kendi davranışımız rasyonel yani akılcı. Orada çıkarımızı koruyoruz ama çelişki ironiye bak yaa.

- 10. Esas şey de şu şimdi maden sektörü dediğimiz zaman bu sadece oradaki çalışan sayısıyla sınırlı değil. Bunun yarattığı bir de katma değer var, istihdam var. Şimdi şey yapılmış, inceleme kurulu raporumuzda da var o bizim, bir maden işçisi istihdam edildiği zaman dolaylı olarak 13 kişiye de istihdam sağlanıyor diye. Dolayısıyla bizim burada sadece işte 7bin işçi değil, esas itibariyle dolaylı olarak 1'e 13 gibi bir etkisi var. Ve artı bir de bunun aileleriyle birlikte düşündüğümüz zaman rakamlar çok şey bir noktaya gidiyor. Sen çözümü sadece bir kişiye bulduğun zaman esas itibariyle şehre çözüm bulmuş olmuyorsun. Ailelelere çözüm bulmuş olmuyorsun.
- 11. Özal'ın da misyonu bu dünyadaki neoliberal akımın Türkiye'deki uzantısıydı yani. Nedir o da devlet baba değil. Ben Özal'dan öğrendim. Bazı şeyleri de kafamızı duvara vurarak öğrendik. Ben şaşırdım hakikaten devlet baba değil. Hakikaten doğru ya. Çünkü ne oluyor biliyor musun devlet baba olduğu zaman

- senin bir şey yapmana gerek yok. Baba ver. Baba ne verirse onu yiyorsun ne gösteriyorsa onu yapıyorsun, ilerleme diye bir şey yok. Rekabet yok. Kendini geliştirme diye bir ihtiyacın yok. Nasılsa devlet baksın bana falan. O şeyi Özal yıktı. Özal yıktı ama onu yıkarken bir sürü güzellikleri de yıktı...
- 12. Hayatımız bir şekilde TTK işçisi bugün bu noktada ise bir dönem, özellikle 80'deki darbe sebebiyledir. Askeri darbe yapıldığı zaman tam toplu sözleşme dönemindeydik. Toplu sözleşme görüşmeleri devam ediyordu şey aşamasındaydı. O cunta yönetimi o yıl bizi toplu sözleşme yaptırmadı. Hiç zam almadık. 0 zam aldık. Asgari ücretin 80li yıllarda asgari ücretin altına düştü. Özellikle hariciye işçisinin aldığı ücret asgari ücretin altına düştü. O yıllarda durumumuz berbattı yani. Bu 80li yıllara kadar böyle değildi yani. İnsanlar bir şekilde aldığı ücretten çok felan şikayetçi değildi.
- 13. Şöyle diyim ben sana ben Yatırım İşleri Safi Şefliği de yaptım 97 yılına kadar. 84'ten 97'ye kadar 13 yıl yatırımların başındaydım ben. O süre zarfında şöyle de bir olay var. Biz metre maliyeti çıkarırız. Bir metre galerinin maliyetini çıkarırız. Bir metre galeriyi sürmek için yaklaşık 32 tane yevmiye gerekir. Bu en az 8 ve 10-12 arası işçidir bu yevmiyenin karşılığına denk gelecek. Bir metre galeri de atıyorum 1000 liraya metresini sürdüğünüz galeri 300 metre demek 300 bin lira ödenek ayıracaksın demek oluyor. Ama devlete diyordu ki sana 150bin tl ödenek. Sen de 150 bin lirayla o 300 metre galeri hedefine ulaşma şansın yok. Tamam. Birincisi bu. İkincisi işçi sayısı düştükçe ne oldu? Dolayısıyla bir metrede 32 yevmiye ederken, biz bir süre sonra hesap yapmaya başladık dedik ki bu 18 yevmiyeyle de bu galeri sürülür. Ama sürülmedi. Öyle olmuyor. Yani ne çabaladıysak, işçi olmadığı sürece ne kadar mekanize de etsen.... Ama şimdi

- bunlar önce EKİ bitti, tüketildi. Peşinden buna paralel olarak bu kentin her şeyi olan kent küçülmeye başladı.
- 14. Oradaki herkes şöyle olabilir mi? Ağlayarak hiç kimse yani işçinin büyük bir bölümü ağlayarak geri döndü. Oysa biz halay çekerek zafer kutlayarak geri dönmemiz gerekirdi. Kimse zafer kutlayamadı maalesef. Şimdi bunu bu büyük yürüyüşü karalamamak için veya ona bir leke sürmemek için bunları söylemek, çok yerde söylemem yani. Burada söylüyorum. Başarısızlık noktası orasıdır. Çünkü insanlar oradan ağlayarak geri dönmemeliydi. Zafer şarkıları söyleyerek, eğlenerek, halay çekerek, biz yürüdük ve başardık diyerek... Şey yaptılar, burnumuzu sürttül... Biz aynı zamanda o geri dönüş bizim burnumuzun sürtüldüğü andı. Ve ondan sonra mesela o tarihten sonra maden işçisi mesela TTK küçüldü, özelleştirildi birçok işkolu şu oldu bu oldu kısmen ufak ufak cılız cılız şeyler oldu ama ciddi bir eylemlilik gösteremedi. Çünkü o büyük en son noktaydı yani. Orada biz başararak geri dönüyoruz şeysi insanlarda olsaydı yaa bu noktaya TTK'yı getiremezlerdi. İşçi sayısını azaltamazlardı, birçok iş yerini kapatamazlardı. Çünkü korkarlardı maden işçisinden. Artık ne yaptılar burnumuzu sürttüler orada bizim biraz, ben öyle değerlendiriyorum.
- 15. Ben 42 yaşındaydım. Bir kendime göre bir 10 yıl daha çalışmayı düşünüyordum şahsen. 50 yaşına kadar çalışırım diyordum en azından yani. Ben 42 yaşında emekli oldum diyorum. Emekli olmadım, işten atıldım. Bu emekli olmak değildir. Emekli insan kendi iradesiyle sana yasaların tanıdığı noktaya kadar çalışma hakkını kullanarak emekli olursam ben kendi rızamla emekli olmuş olurum. Ama yarın sen işe gelme denildiğinde işten atılmışsındır. Yapılması gereken bir sürü şeyim vardı. Yani aniden emekli oluyorsun. Hani bizim belki bağımız bahçemiz şuyumuz buyumuz var, biz hani bi yerde tutunutuz, geçiniriz,

- şey yaparız ama bir sürü insanın daha çocuğu çok küçüktü yeni 40 yaşında adam 30 yaşında evlendiyse, 25 yaşında evlendiyse, 10-15 yaşında 3-5 yaşında çocukları var anlamına gelir. Hepsi okul çağında...
- 16. Şöyle söyleyeyim sana o eski işçiler peyderpey emekli oldu. Şeyi de yapmaya başladılar yani. Bunun önüne geçebilmek için işçi alımlarını grevden sonra şey kuşaktı benim kuşağımdı yani biraz genellikle eski solcular diyelim yani. İşçilik hayatlarının son dönemleriydi. Bunun avantajını kullanarak bizi emekliliğe zorladılar. Alttan gelenlerle de ilişkiler koptu. Mücadeleyi örgütlemek daha zorlaştı.
- 17. ocakları ne kapatabildiler ne de yatırım yaptılar. Kendi kendine ölüme terk ettiler yani. Onun yerine uygulanan kendi kendini çürütsün, bitirsin modeli uygulandı. Ne bir yol gösterildi ne yatırım yapıldı. Doğru dürüst yeni işçi de alınmadı. Yani işletme kendi kendini eritsin bitirsin diye bir süreç uygulandı.

APPENDIX C

APPROVAL OF THE ETHICS COMMITTEE

Evrak Tarih ve Sayısı: 27.11.2021-40496

T.C. BOĞAZİÇİ ÜNİVERSİTESİ SOSYAL VE BEŞERİ BİLİMLER YÜKSEK LİSANS VE DOKTORA TEZLERİ ETİK İNCELEME KOMİSYONU TOPLANTI KARAR TUTANAĞI

Toplantı Sayısı : 24 Toplantı Tarihi : 24.11.2021 Toplantı Saati : 14:00

Toplantı Yeri : Zoom Sanal Toplantı

Bulunanlar : Prof. Dr. Ebru Kaya, Prof. Dr. Fatma Nevra Seggie, Dr. Öğr. Üyesi Yasemin Sohtorik İlkmen

Bulunmayanlar

Mustafa Kerem Tokel Sosyoloji

Sayın Araştırmacı,

"Kömürden Sonrası: Zonguldak Kömür Havzası'nın Sanayisizleşme Süreci ve Sosyoekolojik Etkileri" başlıklı projeniz ile ilgili olarak yaptığınız SBB-EAK 2021/69 sayılı başvuru komisyonumuz tarafından 24 Kasım 2021 tarihli toplantıda incelenmiş ve uygun bulunmuştur.

Bu karar tüm üyelerin toplantıya çevrimiçi olarak katılımı ve oybirliği ile alınmıştır. COVID-19 önlemleri kapsamında kurul üyelerinden ıslak imza alınamadığı için bu onay mektubu üye ve raportör olarak Fatma Nevra Seggie tarafından bütün üyeler adına e-imzalanmıştır.

Saygılarımızla, bilgilerinizi rica ederiz.

Prof. Dr. Fatma Nevra SEGGIE ÜYE

e-imzalıdır Prof. Dr.Fatma Nevra SEGGIE Raportör

SOBETİK 24 24.11.2021

Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

REFERENCES

- Arıcı, K. (1994). Türk sosyal güvenlik sisteminde resen emeklilik ve resen emeklilikte son uygulamalar üzerine bir değerlendirme. *Kamu-İş*, *13*, 9-31.
- Asdal, K., & Moser, I. (2012). Experiments in context and contexting. *Science, Technology, & Human Values*, *37*(4), 291-306. https://doi.org/10.1177/0162243912449749.
- Aytekin, A. E. (2007). Tarlalardan ocaklara sefaletten mücadeleye: Zonguldak-Ereğli Kömür Havzası işçileri, 1848-1922. Yordam Yayınları.
- Bali, R. (1998). İşadamları ve siyaset: Pragmatik bir aşk hikayesi. *Birikim Dergisi*, 114, 31-37.
- Barutçu, A., & Özdemir, F. U. (Ed.). (2017). Yüz karası değil, kömür karası: Zonguldak. İletişim Yayınları.
- Bhambra, G. K. (2015). *Moderniteyi yeniden düşünmek: Post-kolonyalizm ve sosyolojik tahayyül*. İstanbul Bilgi Üniversitesi Yayınları.
- Birch, K. (2015). Neoliberalism: The whys and wherefores ... and future directions: Neoliberalism. *Sociology Compass*, *9*(7), 571-584. https://doi.org/10.1111/soc4.12277.
- Bluestone, B., & Harrison, B. (1982). The deindustrialization of America: Plant closings, community abandonment, and the dismantling of basic industry. Basic Books.
- Bonneuil, C., & Fressoz, J.-B. (2016). The shock of the Anthropocene: The earth, history and us. Verso Books.
- Bora, T. (2018). *Cereyanlar: Türkiye'de siyasî ideolojiler* (K. Ünüvar, Ed.; 1. baskı). İletişim Yayınları.
- Boratav, K. (1982). *Türkiye'de devletçilik*. Savaş Yayınları.

- Boratav, K. (1994). KİT'ler ve özelleştirme sorunları. *Sempozyum KİT'ler ve Özelleştirme Bildiriler*. TMMOB Yayınları, 40-49.
- Boratav, K. (2019). Türkiye iktisat tarihi (1908-2015). İmge Kitabevi Yayınları.
- Boulding, K. E. (1970). Economics as a science. McGraw-Hill.
- Boyer, D. (2014). Energopower: An introduction. *Anthropological Quarterly*, 87(2), 309-333. https://doi.org/10.1353/anq.2014.0020.
- Boym, S. (2001). The future of nostalgia. Basic Books.
- Breslau, D. (2003). Economics invents the economy: Mathematics, statistics, and models in the work of Irving Fisher and Wesley Mitchell. *Theory and Society*, 32(3), 379–411.
- Buğra, A. (2001). İktisatçılar ve insanlar: Bir yöntem çalışması. İletişim Yayınları.
- Buğra, A., & Ağartan, K. (Ed.). (2007). Reading Karl Polanyi for the twenty-first century: Market economy as a political project. Palgrave Macmillan.
- Cobb, C., & Halstead, T., & Rowe, J. (1995). If the GDP is up, why is America down?. *The Atlantic Online*. Url: https://www.theatlantic.com/past/docs/politics/ecbig/gdp.htm.
- Crutzen, P. J. (2002). Geology of mankind. *Nature*, *415*(6867), 23. https://doi.org/10.1038/415023a.
- Deniz, T. (2014). Zonguldak ilinde nüfusun gelişimi ve dağılışı. *Doğu Coğrafya Dergisi*, 19(32), 299. https://doi.org/10.17295/dcd.37481.
- Ekinci, İ. (2006). 19. yüzyılda Osmanlı deniz ticaretinde değişim ve tepkiler. *Tarih İncelemeleri Dergisi*, 21(2), 35-76.
- Eldem, V. (1994). *Osmanlı İmparatorluğu'nun iktisadi şartları hakkında bir tetkik.* Türk Tarih Kurumu Basımevi.

- Engin, F. (2012), Bir grev Iincelemesi: 1990-1991 Zonguldak Grevi. In *IV. Sosyal Haklar Ulusal Sempozyumu Bildirileri*, 195-205.
- Ersoy, M., & Şengül, T. (2001). Sanayisizleşme sürecinin kentsel yaşama etkileri: Zonguldak örneği. *ODTÜ Kentsel Politika Planlaması ve Yerel Yönetimler Ana Bilim Dalı Yayın*, 5.
- Ferguson, J. (1999). Expectations of modernity: Myths and meanings of urban life on the Zambian Copperbelt. University of California Press.
- Freese, B. (2003). Coal: A human history. Perseus Pub.
- Genç, H. (2007). *Ereğli Kömür Madenleri (1840-1920)*. (Unpublished Doctoral Dissertation). Marmara University, Istanbul, Turkey.
- Gibson-Graham, J. K. (2006). The end of capitalism (as we knew it): A feminist critique of political economy. University of Minnesota Press.
- Gibson-Graham, J. K. (2008). Diverse economies: Performative practices for `other worlds'. *Progress in Human Geography*, 32(5), 613-632. https://doi.org/10.1177/0309132508090821.
- Godoy, R. (1985). Mining: Anthropological perspectives. *Annual Review of Anthropology*, *14*(1), 199-217.
- Gordon, S. (2015). Narratives unearthed, or, how an abandoned mine doesn't really abandon you. In *Mining and Communities in Northern Canada: History*, *Politics, and Memory*, (3). University of Calgary Press.
- Graeber, D. (2011). Debt: The first 5,000 years. Melville House Publishing.
- Güler, M. A. (2019). Zonguldak Havzasında işçi hareketleri ve 1990-1991 Büyük Madenci Grevi. *Çalışma ve Toplum*, *60*, 509-530.
- Gürboğa, N. (2009). The Zonguldak Coal Basin as the site of contest, 1920-1947: Mine workers, the single party rule, and war. Ottoman Bank Archives and Research Centre.

- Hamilton, C. (2017). *Defiant earth: The fate of humans in the Anthropocene*. John Wiley & Sons.
- Haraway, D. J. (2016). *Staying with the trouble: Making kin in the Chthulucene*. Duke University Press.
- Harvey, D. (2005). A brief history of neoliberalism. Oxford University Press.
- Heinrich Böll Stiftung Derneği. (2017). Kömür atlası: Fosil yakıtlar hakkındaki olgular ve rakamlar. Creative Commons.
- High, S. C., MacKinnon, L., & Perhard, A. (Ed.). (2017). *The deindustrialized world: Confronting ruination in postindustrial places*. UBC Press.
- Ingold, T. (2014). That's enough about ethnography!. *HAU: Journal of Ethnographic Theory*, *4*(1), 383-395. https://doi.org/10.14318/hau4.1.021.
- İnönü, İ. (2004). Fırkamızın devletçilik vasfı. In *Kadro Seçmeler*, (601-603). İleri Yayınları.
- Ironmonger, D. (1996). Counting outputs, capital inputs and caring labor: Estimating gross household product. *Feminist Economics*, *2*(3), 37-64. https://doi.org/10.1080/13545709610001707756.
- Işın, Ş. (2009). Deindustrialization, decline and restructuring in socio-spatial context: A multi-layer exploratory study on a mono-centric local economy, Zonguldak case. (Unpublished Doctoral Dissertation). Middle East Technical University, Ankara, Turkey.
- Jacka, J. K. (2018). The anthropology of mining: The social and environmental impacts of resource extraction in the mineral age. *Annual Review of Anthropology*, 47, 61-77.
- Jevons, W, S. (1866). The coal question: An inquiry concerning the progress of the nation and the probable exhaustion of our coal-mines, London: Macmillan.
- Johnson, C. H. (2002). De-industrialization and globalization. *International Review of Social History*, 47, 3-33.

- Kahveci, E. (2015). Migration, ethnicity, and divisions of labour in the Zonguldak Coalfield, Turkey. *International Review of Social History*, 60(1), 207-226.
- Kaya, M. (2008). (Director). Derin Çığlık/263 (Documentary).
- Keeling, A., & Sandlos, J. (2015). *Mining and communities in Northern Canada: History, politics, and memory* (3). University of Calgary Press.
- Ketenci, S. (1985). İşçiler ve çalışma yaşamı: 1980'lerde sınırlar ve sorunlar. In Kuruç, B. (Ed.) *Bırakınız Yapsınlar Bırakınız Geçsinler*. Bilgi Yayınevi, 159-201.
- Kıray, M. (1964). Ereğli: Ağır sanayiden önce bir sahil kasabası. İletişim Yayınları.
- Klein, N. (2007). The shock doctrine: The rise of disaster capitalism. Picador Books.
- Kömür ocaklarını kapatalım. (2010, May 23). *T24*. Url: https://t24.com.tr/haber/komur-ocaklarini-kapatalim,78415.
- Makal, A. (2007). Ameleden işçiye: Erken cumhuriyet dönemi emek tarihi çalışmaları. İletişim Yayınları.
- Malinowski, B. (1922). Argonauts of the Western Pacific: An account of native enterprise and adventure in the archipelagos of Melanesian New Guinea. Routledge.
- Midley, S. (2015). Contesting closure: science, politics, and community responses to closing the Nanisivik mine, Nunavut. In *Mining and Communities in Northern Canada: History, Politics, and Memory* (3). University of Calgary Press.
- Mirowski, P. (1995). *More heat than light: Economics as social physics: physics as nature's economics.* Cambridge University Press.
- Mitchell, T. (1995). Origins and limits of the modern idea of the economy. Retrieved from https://blogs.cuit.columbia.edu/tm2421/files/2018/01/Mitchell-1995.pdf.
- Mitchell, T. (2002). *Rule of experts: Egypt, techno-politics, modernity*. University of California Press.

- Mitchell, T. (2011). Carbon democracy: Political power in the age of oil. Verso Books.
- Nichols, T. & Kahveci, E. (1994). Politik rejim, sermaye birikimi ve Türkiye'de maden işçisinin durumu: Zonguldak Kömür Havzasında son 50 yılda meydana gelen iş kazalarının bir değerlendirmesi. *Sosyoloji Dergisi*, 5, 1-34.
- Oral, T. (1997). Varoluş destanı. Genel Maden İş Yayınları.
- Ostry, J.D., & Loungani, P., & Furceri, D. (2016). Neoliberalism: Oversold?. In *Finance and Development*, *53*(2), 38-41.
- Özal, T., & Barlas, M. (1996). Turgut Özal'ın anıları. Birey Yayıncılık.
- Özdemir, C. (2017). İstatistiklerle Zonguldak'ın durumu: 2015 illerde yaşam endeksi verileri. In A. Barutçu, & F. U. Özdemir (Ed.), *Yüz Karası Değil, Kömür Karası: Zonguldak*. İletişim Yayınları.
- Özeken, A. A. (1955). Türkiye kömür ekonomisi tarihi. Milli Mecmua Basımevi.
- Pamuk, Ş. (1987). The Ottoman Empire and European capitalism, 1820-1913: Trade, investment, and production. Cambridge University Press.
- Peluso, N. L., & Lund, C. (2011). New frontiers of land control: Introduction. *Journal of Peasant Studies*, 38(4), 667-681. https://doi.org/10.1080/03066150.2011.607692.
- Pike, A. (2020). Deindustrialization. In *International Encyclopedia of Human Geography*, (213-222). Elsevier. https://doi.org/10.1016/B978-0-08-102295-5.10040-X.
- Podobnik, B. (2006). *Global energy shifts: Fostering sustainability in a turbulent age*. Temple University Press.
- Polanyi, K. (1945). The great transformation: The political and economic origins of our time. Beacon Press.

- Pomeranz, K. (2000). The great divergence: China, Europe, and the making of the modern world economy. Princeton Univ. Press.
- Quataert, D. (2006). Miners and the state in the Ottoman Empire: The Zonguldak Coalfield, 1822-1920. Berghan Books.
- Quataert, D. (2017). Osmanlı Devleti'nde Avrupa iktisadi yayılımı ve direniş 1881-1908. İletişim Yayınları.
- Rajak, D. (2011). *In good company: An anatomy of corporate social responsibility*. Stanford University Press.
- Robertson, D. (2010). *Hard as the rock itself: Place and identity in the American mining town*. University Press of Colorado.
- Rodrik, D. (1990). Premature liberalization, incomplete stabilization: The Özal decade in Turkey (No. w3300). *National Bureau of Economic Research*.
- Rothstein, F. (1986). The new proleterians: Third world reality and first world categories. *Comparative Studies in Society and History*, 28(2), 217-238.
- Savaşkan, B. (1993). Zonguldak maden kömürü tarihçesi, 1829-1989. Türkiye Taşkömürü Kurumu Eğitim Daire Başkanlığı Yayınları.
- Schindler, S., Gillespie, T., Banks, N., Bayırbağ, M. K., Burte, H., Kanai, J. M., & Sami, N. (2020). Deindustrialization in cities of the Global South. *Area Development and Policy*, *5*(3), 283-304. https://doi.org/10.1080/23792949.2020.1725393.
- Şengül, H. T., & Aytekin, E. A. (2012). Zonguldak Coalfield and the past and future of Turkish coal-mining communities. In J. Kirk, S. Contrepois, & S. Jeffreys (Ed.), *Changing Work and Community Identities in European Regions*, (154-183). Palgrave Macmillan UK. https://doi.org/10.1057/9780230353916_6.
- Şengül, H. T., & Aytekin, E. A. (2017). Devletin Zonguldak Kömür Havzası'nda işçi sınıfı kimliği üzerindeki etkisine dair bazı notlar. In A. Barutçu, & F. U. Özdemir (Ed.), *Yüz Karası Değil, Kömür Karası: Zonguldak*. İletişim Yayınları.
- Sieferle, R. P. (2001). The subterranean forest: Energy systems and the industrial revolution. White Horse Press.

- Simmel, G. (2002). Metropolis and mental life. In G. Bridge and S. Watson, (eds). *The Blackwell City Reader*. MA: Wiley-Blackwell.
- Stoler, A. L. (2008). Imperial debris: Reflections on ruins and ruination. *Cultural Anthropology*, 23(2), 191-219. https://doi.org/10.1111/j.1548-1360.2008.00007.x.
- Stoler, A. L. (2013). Introduction "the rot remains": From ruins to ruination in A. L. Stoler (Ed.) *Imperial Debris: On Ruins and Ruination*, (1-35). Duke University Press.
- Tsing, A. L. (2005). Friction: An ethnography of global connection. Princeton University Press.
- Tsing, A. L. (2015). The mushroom at the end of the world: On the possibility of life in capitalist ruins. Princeton University Press.
- Tuncer, K. (1998). Tarihten günümüze Zonguldak'ta işçi sınıfının durumu: Kumpanyalar dönemine geri dönüş. Göçebe Yayınları.
- Türkiye Taşkömürü Kurumu. (1995). *Türkiye Taşkömürü Kurumu İnceleme Kurulu Raporu*. Genel Maden İş Sendikası Yayınları.
- Türkiye Taşkömürü Kurumu. (2012). 2011 Yılı Faaliyet Raporu. Türkiye Taşkömürü Kurumu Genel Müdürlüğü Yayını.
- Turnbull, T. (2021). Energy, history, and the humanities: Against a new determinism. *History and Technology*, *37*(2), 247-292. https://doi.org/10.1080/07341512.2021.1891394.
- Turner, R. S. (2007). The 'rebirth of liberalism': The origins of neo-liberal ideology. *Journal of Political Ideologies*, 12(1), 67-83. https://doi.org/10.1080/13569310601095614.
- Tüylüoğlu, Ş., & Karakaş, D. N. (2006). Bölgesel kalkınma ve ekonomik durgunlaşma süreci: Zonguldak örneği. *Amme İdaresi Dergisi*, *39*(4), 195-224.

- Wallace, M. (1987). Industrial museums and the history of deindustrialization. *The Public Historian*, *9*(1), 9-19.
- Waring, M. (1988). If women counted: A new feminist economics. Harper & Row.
- Yıldırım, A. E. (2017). Mükellefiyetin ardından: Zonguldak Kömür Havzası'nda çalışma ilişkileri (1946-1962). In A. Barutçu, & F. U. Özdemir (Ed.), *Yüz Karası Değil, Kömür Karası: Zonguldak*. İletişim Yayınları.
- Yıldırım, A. E. (2017b). Savaş sonrası Zonguldak'ta devlet, madenci ve hayat (1946-1962). Bülent Ecevit Üniversitesi Yayınları.
- Yılmaz, E. (2019). Bir madenci kentinde simbiyotik ilişkiler: Zonguldak'ta değişen maden işçiliği, sermaye ve politik kültür. (Unpublished Doctoral Dissertation). Ankara University, Ankara, Turkey.
- Zaman, E. M. (2004). *Zonguldak Kömür Havzası'nın iki yüzyılı*. TMMOB Maden Mühendisleri Odası Yayınları.
- Zaman, E. M. (2012). Zonguldak: İnsan, mekân, zaman. TMMOB Maden Mühendisleri Odası Yayınları.
- Zonguldak Maden İşçileri Sendikası. (1980). ZMİS ile TTK işverenler sendikası arasında yapılan 9. dönem toplu Iiş sözleşmesi. ZMİS Yayınları.