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The State, Entrepreneur, and Labour in the Establishment of the Iranian Copper Mining Industry: The Sarcheshmeh Copper Mine 1966-1979

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Chapter Three

Formation of the Modern Copper Industry in Iran: The Relationship between a Developmental State and the Company

Introduction

The focus of the previous chapter was on the state's promotion of social policies and mining expansion in the Pahlavi era, through designing and implementing a series of developmental programmes. It also considered the social dynamics of Iranian society with particular reference to the way in which workers adapted their status to the changing social policy and industrial plans. This chapter, and the one that follows, examines the relationship between the Iranian state, mining entrepreneurs and the workers with regard to the development of the modern copper industry in Iran. Since the Sarcheshmeh Copper Mine established the copper industry, the chapter will concentrate on the foundation of this mine from its earliest exploration activities in 1966 until the 1979 Revolution when the mine was ready to operate. Chapter four will examine the social phenomena to discover the structure of the relationship between the workers and the state, and the workers and the mining entrepreneurs. As an introduction to discussion on the state-centric developmental plan and industrial development in the 1960s and 1970s, this chapter will expound on the establishment of the Sarcheshmeh Copper Mine, which shaped the development of the Iranian copper industry. It focuses in the contribution of the principal actors, those identified as forces from above, including local entrepreneurs, technocrats, state institutions, and the state's developmental strategy in the formation of

the mine. Analysis of archival resources, as well as the oral narratives of eyewitnesses, suggests that the relationship between the different forces and the role each played in the development of the Iranian copper industry can be framed in a theory of the developmental state. The concept of the developmental state was built upon studies of the exceptional economic growth of East Asian countries, such as Japan and South Korea, in the 1980s. It is examined the Iranian developmental state through revisiting the question of nationalisation of the Sarcheshmeh Copper Mine and studying the two claims that were made concerning the mine's proprietorship and its transition to state ownership. The first account was given by the original mine owners, the Rezai brothers, who claimed that the Shah's coercion left them with no choice other than to transfer the mine to state ownership; a claim supported by some historians such as Abbas Milani.²²² The second narrative, which was granted more credence, denies the application of duress, purporting that suspension of the project led the state to submit an offer to nationalise the mine, and the transaction proceeded under fair terms.²²³

The Developmental State Framework

The theory of developmental state originated from studies of successful interventionist economic and social programmes in East Asian countries in the 1980s. It was initially fashioned on Chalmers Johnson's reflection on the origins of Japan's phenomenal industrial

222 Abbas Milani, "Tajadod dar Iran [Modernity in Iran]," YouTube video, Special Talk, posted by "Persian Atheist", accessed December 12, 2016, <http://www.youtube.com/watch?v=ILN5JxalI4M>; Milani also raised the issue in his book. See Abbas Milani, *the Shah* (New York: Palgrave Macmillan, 2011), 263.

223 Reza Niazmand, Interviewed by Author, January 4. 2015.

growth which resulted in the creation of an interventionist economic framework that combined private ownership with state direction.²²⁴ The profile identified the state as the main agent of socio-economic development, through establishing efficient institutions run by a body of professional experts who drafted policy to couple national resources with cutting-edge aspirations.

The theory was built upon the premise of ‘embedded autonomy,’ in which the developmental state is closely associated with the private sector, but an appropriate distance is left for modification of aims and policies when capital interests are not in line with national interests. Therefore, the incentive element of nationalism plays a significant role in the process. Johnson traces this important element to the rapid economic growth in Japan which in reality was born from the struggle with stronger external powers in WWII. He viewed the East Asian development, mainly Japan, South Korea, and Taiwan, as based on a specific type of nationalism that originated from war and imperialism.²²⁵ The Japanese nationalism that arose from wartime, mainly WWII, transmuted later into economic nationalism. As stated by Jansen, Japanese economic development became a central means for coming to terms with nationalism during the post-war period, after Japan was destructively defeated, “overcoming depression, war preparations, warfighting, post-war reconstruction, and independence from the US aid”.²²⁶

224 Chalmers Johnson, *MITI and Japanese Miracle: The Growth of Industrial Policy 1925-1975* (Stanford: Stanford University Press, 1982).

225 Meredith Woo-Cummings, *the Developmental State* (New York: Cornell University Press, 1999), 21.

226 *Ibid.*, 20.

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A developmental state is principally framed by four specifications. First and foremost is the requirement for a development-oriented state to fulfil its commitment towards attaining advanced objectives.²²⁷ The state participates by constructing and managing capable independent institutions that are charged with creating and implementing a developmental strategy based on national interests. The second is having an administrative proficiency of high order, created on meritocracy and consisting of a body of highly professional technocrats. The third specification, which is complementary of the second one, is autonomy of the state body from the social groups.²²⁸ The final specification is to have a unified and agile bureaucratic system.²²⁹ These specifications are traceable back to the successful development of the copper industry in Iran. In chapter two, the argument was built upon the constructive role of the development-oriented view of the state, a high level of political stability, the rise in oil income, and establishing the Budget and Plan Organisation as an efficient pilot organisation to lead mining and industrial development.²³⁰ That was combined with the emergence of a group of technocrats, most of whom were invited to work for the state based on a meritocratic system. Most of them had experienced the distressing national conflict with foreign powers and their interference in Iran's pathway towards autonomy, chiefly mirrored by their invasion during

227 Stephane Haggard, *Pathways from the Periphery* (New York: Cornell University Press, 1990).

228 Stephane Haggard, *Pathways from the Periphery* (New York: Cornell University Press, 1990); Peter Evans, *Embedded Autonomy: State and Industrial Transformation* (Princeton: Princeton University Press, 1995).

229 Chalmers Johnson, *MITI and the Japanese Miracle: The Growth of Industrial Policy 1925-1975* (Stanford: Stanford University Press, 1982).

230 The rise of oil income enabled them to cover the shortfall in the expert knowledge, modern technology, and skilled labour force to set up a semi-dependent mining sector. By semi-dependent, I mean in the medium-term they would be dependent on technology and management. The company planned to train local experts and workforce to replace foreigners in the future.

WWI and WWII and their connivance the 1953 coup. This placed Iran under a semi-colonial condition, which consequently led to a form of national identity shaped by those traumatic events that were foremost in Iranian's collective memory (further discussion on Iran's semi-colonial condition and its consequences will be covered in chapter four). Nationalism emerged among all types of people and social classes including the proletariat and social elite²³¹, and state technocrats such as Reza Niazmand, the first managing director of Sarcheshmeh Copper Mine, who set the benchmarks in their professions, echoing those of the US and Britain, based on national rather than class interests, as evidenced in the developmental programmes and industrial strategies such as the Sarcheshmeh Copper Mine project.²³²

The Sarcheshmeh Area

The Sarcheshmeh Copper Mine is located in the Rafsanjan region of Kerman province. It is surrounded by cities; to the south is Sirjan, while Bafq and Zarand lie to the north, with Kerman to the east and Shahr-e Babak to the west. Rafsanjan is a major city with which Sarcheshmeh is closely linked both economically and socially.

The region lies at different altitudes, generating two different climates. One area is a plain, with a dry climate and desert, while the other area is located on higher land with a milder climate. The weather, therefore, varies from very dry and warm to cool and mild

231 It would be far beyond the scope of this thesis to elaborate the thoughts of Iranian intellectuals who focused on the idea of autonomy and self-sufficiency. Chief among them are the two intellectuals, Jalal Al Ahmad and Ali Shariati, whose thoughts deliberated anti-imperialism.

232 Some have identified it as economic nationalism. However, it mainly originated from the post-colonial conditions in peripheral countries. For economic nationalism see Umut Ozkirimli, *Theories of Nationalism: A Critical Introduction* (New York: Palgrave, 2000), 40-41.

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across the Rafsanjan region. There are also significant differences in temperature between winter and summer, and between day and night. The land includes mountains, stony areas, earth hills, sands, sand dunes, and scrubland. The Rafsanjan-Anar plain lies between the cities of Rafsanjan and Anar, its southern boundary marked by the Sarcheshmeh range and the Mozemem mountains, which mostly contain magma, flysch, and gabbro.²³³

In comparison with other cities in Kerman province, Rafsanjan has a well-developed agrarian economy. Cotton was once its principal product but other agricultural products, mainly pistachio nuts, form the city's current economic base, the brisk trade having rapidly boosted development of the Rafsanjan region. Seventy percent of Rafsanjan's farmers are involved in pistachio cultivation, on nearly 66 percent of the farmland.²³⁴ Agriculture had traditionally employed most of the region's workforce, with industry having no significant place in the economy of Rafsanjan for many years. Statistical data show that by 1979 only 11 licenses had been issued to establish industrial plants in the Rafsanjan area, with income amounting to a total of 2,013,158 rials and employing 323 workers.²³⁵

In 1966 the Rafsanjan region had three cities, two districts, 14 rural districts, and 1,161 residential and non-residential townships.²³⁶ Waves of migration rapidly increased its population from 9,212 in 1956 to 21,425 in 1966, which indicates that the city made good

233 Vezarat-e Defa' [Ministry of Defence], *Farhang-e Joghrafiyai-ye Abadiha-ye Ostan-e Kerman: Shahrestan-e Rafsanjan* [The Information on Kerman Province's Townships: Rafsanjan city] (Tehran: Sazman-e Joghrafiyai-ye Vezarat-e Defa' VA Poshtibani-ye Niruha-ye Mosalah, 1383 [2005]), 13.

234 Ibid., 276.

235 Industrial Department of Kerman Province (1996) quoted in Mohammad Hossein Sharifzadegan, "Global and Local in Economic Development and Regional Planning: The Case of Rafsanjan-Iran" (PhD diss., Birkbeck College, University of London, 2001), 62.

236 Taqsimat-e Joghrafiyai Ostan-e Kerman [Geographical Division of Kerman Province], 4.

economic and social progress to absorb so many people so quickly. Other than the city of Kerman itself, Rafsanjan had the fastest growth in comparison with the other sizeable cities of Kerman province.

Geography

The Rafsanjan region covers 10,687.3 km². It is divided into four districts, Anar, Koshkueyeh, Markazi, and Nuq. Sarcheshmeh is currently governed by the Markazi district which consists of eight rural districts: Azadegan, Eslamyeh, Khanaman, Darehdaran, Razm Avaran, Qasemabad, Kabotarkhan, and Sarcheshmeh. Sarcheshmeh rural district covers 1,038.12 km² and its centre is Sarcheshmeh Town (Table1).

Table 1: Markazi District of Rafsanjan

Rural District	Area (km ²)	Centre of Rural District	City	Number of Townships	Number of Farms and Places ²³⁷
Azadegan	588.75	Rezaabad	Rafsanjan	29	53
Eslamyeh	584.25	Hormozabad	Sarcheshmeh	10	58
Khanaman	943.125	Khanaman	----	18	74
Dareh Daran	520.635	Davaran	----	6	19
Razm Avaran	100.312	Lahijan	----	17	29
Sarcheshmeh	1038.125	Sarcheshmeh Town	----	10	145
Ghasemabad	350	Ghasemabad	----	18	29
Kabotarkhan	796.562	Kabotarkhan	----	14	97

Source: Vezarat-e Defa' [Ministry of Defence] (1383) [2004]: 3.

²³⁷ In Iran's country division, a farm is not a village, but is a geographical location which has its economy based on agriculture and animal husbandry. A place is neither a village nor a farm and its economy is based on non-agricultural activities.

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The Sarcheshmeh rural district, with ten villages and 145 farms and hamlets, covers 22 percent of the Markazi district and is bordered by Kabotarkhan and Eslamyeh to the north and north-west, Pariz to the south side, Meymand to the south-west, Bardsir to the east and Paqal'eh to the west. The average altitude of townships in the rural district is 2,371 m, with the highest, Deh-e Sepahan 'Olya, at 2,575 m, and Dehueyeh the lowest point, at 1,970 m.²³⁸ the main water source for farmers is the permanent river Givdari²³⁹ with its source at the very end of the Sarcheshmeh heights and Mamsar Mountain to the south-west side of Rafsanjan. After passing a number of villages on its long run, including Barchi, the Givdari ends up on the Rafsanjan plain. Moreover, two seasonal rivers called the Rodin and the Hansij, ten Qanats, and two natural springs supply a portion of the region's water.

Table 2: Important Mountains

Mountain Name	Height(m)	Distance from Sarcheshmeh Town
Beno	3208	12 km - South-East
Daldorn	3051	7 km – East
Kamar Zard	2809	17 km – East
Syah	2769	17 km – East
Sangari	2669	18 km – East
Tal-e Zard	2610	11 km- West

Source: Vezarat-e Defa' [Ministry of Defence] (1383) [2004]: 200.

238 Vezarat Defa' [Ministry of Defence], Farhang-e Joghrafiyai-ye Abadiha-ye Ostan-e Kerman: Shahrestan-e Rafsanjan [The Information on Kerman Province's Townships: Rafsanjan town], (Tehran: Sazman-e Joghrafiyai-ye Vezarat Defa' VA Poshtibani-e Niroha-ye Mosalah, 1383 [2004]), 200.

239 Some people call it Shahzadeh Abbasi.

There are two mountain chains in the Rafsanjan region, both running north-west to south-east (See table 2 for more information about the mountains). On the northern side of the region are the Davaran heights, and on the southern side rise the Sarcheshmeh heights; there are a few single, high hills in the central area between the two mountain ranges. The Davaran heights begin on the west side of Bandrizan Mountain to the north-west of the Nuq area and continue to the Badaman Mountain (Koh Badomo) north of the Baghin area. The southern heights of the Rafsanjan region, where the Sarcheshmeh mines are, run from the Ayub Mountain and Mohammadabad to the south of the city of Anar and run all the way to the Segodari Mountain to the east of Rafsanjan. The mountains in the south rise higher than those in the northern Rafsanjan region, the most important rivers rising in the south.²⁴⁰ A ridge begins at Sarcheshmeh Copper Town and runs to nearby Bardsir, passing through both the Memsar Mountain and the mine itself so that it divides Sarcheshmeh Mountain into a northern and a southern massif. The divide has created the two drainage basins of Dasht-e Sirjan [Sirjan plain] and Khatunabad,²⁴¹ and the Rafsanjan catchment basin.²⁴² The most important town near Sarcheshmeh is Pariz on the south side of the ridgeline in the foothills, where pleasant summer weather has made it an attractive place for wealthy visitors from Sirjan. The north side used to be called Berahkuh, but is currently known as Pasekuh.²⁴³

240 Shirashtyani, A Report on Sarcheshmeh Copper Mine (MA diss., Isfahan University, 1383[2004]), 73.

241 The water for the Sarcheshmeh Copper Complex was supplied from the Khatunabad plain.

242 Abbas Khaleqinejad, "Pishineh-ye Sarcheshmeh" [Sarcheshmeh's Past], Cheshmeh Magazine, no. 4, 1384[2005], 1.

243 Ibid., 1.

There used to be several villages in the area of Sarcheshmeh Copper Complex but they are deserted now due to the mining operations.²⁴⁴ Among the places that were left derelict were Razan, Deh-e Sikhoru, Deh-e Torshab, Deh-e Archandar (Archandareh), Deh-e Paran (Piran), Deh-e Daldun, Deh-e Sereydun, Sarcheshmeh, Morasban, Olang-e Bozorg, and Olang-e Kuchak.

Vegetation

Given the existence of two different types of climate in the region, there are two kinds of vegetation. Desert plants grow near Sarcheshmeh including Tagh, Ekanbil, Ghich, Ashnan, and Gazmi, and wild pistachio trees and wild almond trees can be found on higher ground. The area was once wooded but local demand for firewood has caused severe deforestation.²⁴⁵

The region's agricultural produce comprises cereal crops (mostly wheat and oats), alfalfa, grains such as lentils and peas, and vegetables – chiefly turnips and potatoes. Fruit crops include apples, pears, apricots, cherries, quince, sea-buckthorn, walnuts, almond, and pistachios. The predominant commercial crops, used in manufacturing, are cotton and sunflowers. The chief agricultural water sources in the Sarcheshmeh region are Qanats, the rivers, and springs. Rainfall and a snowy climate also create ideal conditions for a diversity of wildlife. There were wolves, panthers, cheetah, wild boar, and many bird species ranging from common crows, to game birds such as partridge and hoopoe. However, the Sarcheshmeh mine

244 Baqeri, Interviewed by Author, 13 December 2013; Abbas Khaleqinejad, "Pishineh-ye Sarcheshmeh" [Sarcheshmeh's Past], Cheshmeh Magazine, no. 4, 1384[2005].

245 Shirashtyani, A Report on Sarcheshmeh Copper Mine (MA diss., Isfahan University, 1383[2004]), 86.

development itself, and a considerable amount of illegal hunting, have drastically reduced wildlife numbers.

Human Geography

The Sarcheshmeh climate offers good potential for agriculture, which is what most of the inhabitants did; they were arable farmers, or worked in animal husbandry. The residents of the mountainous valley had always faced two critical issues, namely finding flat land and finding a water supply. Most of those living in the mountainous areas survive through a combination of agriculture, animal husbandry, charcoal making, and collection of firewood for fuel.²⁴⁶ Agriculture enabled the area to accommodate temporary seasonal migrants from Rafsanjan during harvest time.²⁴⁷ In the 1960s and 1970s a large population of Turkish-speakers arrived from south-west of Iran and moved to Kerman to work in the coal and iron ore mines in Zarand, Pabedana, Chatrud, and many at the Sarcheshmeh Copper Mine.²⁴⁸

Transport and Roads

Sarcheshmeh currently has access to all major cities via metalled roads. The main road from Sarcheshmeh town to Rafsanjan has recently been made into a motorway. The journey from Tehran to Sarcheshmeh usually takes 11 hours by bus with one change at Rafsanjan, while that journey took 18 hours in the late 1960s, when there were only four scheduled passenger buses daily.²⁴⁹ There was

246 Paul Ward English, *City and Village in Iran: Settlement of Economy in Kerman Basin* (University of Wisconsin Press, 1966), 95.

247 Abbas Khaleqinejad, "Pishineh-ye Sarcheshmeh" [Sarcheshmeh's Past], *Chehsmeh Magazine*, 1384[2005].

248 Mohammad Ebrahim Bastani-Parizi, *Vadi-ye Haftvad* (Tehran: 'Elm, 1394 [2015]), 440

249 Selection Trust Archives, *The Field Operation at Sarcheshmeh 1967-1970*, 11

no railway until the early 1970s. Rafsanjan's small airstrip was created in the late 1960s and used for light aircraft on police duty. There was a weekly scheduled flight from Rafsanjan to Tehran. Kerman airport was the nearest to Sarcheshmeh, with weekly scheduled flights to Yazd, Isfahan, and Tehran.

The Foundation of the Modern Copper Industry in Iran: Sarcheshmeh Copper Mine

In 1968 global copper consumption stood at 5.22 million tonnes, with the United States as the largest consumer.²⁵⁰ One of the most prolific users of copper was the US armed forces, who exhausted 210,000 tonnes in 1968 alone. By 1976 global copper consumption had risen to 8.5 million tonnes, and then rather more slowly reached 10 million tonnes in 1984.²⁵¹ Copper was third on the metal consumption table, after steel and aluminium. In terms of its value, although cheaper than steel, it was more expensive than aluminium. The leading copper producers were Chile, the United States, the USSR, Zambia, Zaire, South Africa, Yugoslavia, Canada, Guinea, Poland, and China during the 1970s, the top three producers being Chile, the United States and the USSR.

Up to 1979, 18 significant copper deposits had been discovered in Iran, the most important being at Sarcheshmeh, Nochun, Dareh Zay, and Koh-e Lar. The total actual reserves of those 18 copper mines were estimated at 900 million tonnes, with probable reserves of 1.553

250 Institute of Geological Sciences: Mineral Resources Division, Statistical Summary of Mineral Industry: World Production, Export and Import 1967 to 1984.

251 Ibid.

billion tonnes.²⁵² Iran's copper production had been insufficient to supply domestic industries, so that the much-needed copper had to be imported (See table 3). This changed with the discovery of the Sarcheshmeh copper deposit, significantly increasing Iranian copper production. The copper extraction stood at 4,820 tonnes in 1958 and 12,400 tonnes in 1960 out of which just four tonnes were sent to West Germany.²⁵³ In the same year, the average number of workers in the copper industry as 334.²⁵⁴ Thereafter, the production of copper dropped to 1000 tonnes in 1970, then rose to 15000 tonnes in 1975.²⁵⁵ Comparison with the output of the Sarcheshmeh Copper Mine development during the late 1970s and early 1980s, including some 150,000 tonnes annually with more than 4,000 personnel, indicates that a major transformation was expected to take place in the mid-1980s.

252 Siamak Zand-e Karimi, Fa'aliatha-ye 'Omdeh-ye Ma'dani-ye Keshvar 1324-1334[Major Mining Activities in Iran 1945-1955] (Tehran: Budget and Plan Organisation, 1357 [1978]), 4.

253 Siamak Zand-Karimi, Fa'aliatha-ye 'Omdeh-ye Ma'dani-ye Keshvar 1324-1334[Major Mining Activities in Iran 1945-1955] (Tehran: Plan Organisation, 1357 [1978]), 52 & 56; Veazarat Sanaye' va Ma'aden – Edareh-ye Amar va Motale'at, Amar-e Fa'aliatha-ye Ma'dani Iran va Rahnama-ye Ma'aden Sal-e 1339[The Statistics of Iran Mining Activities and Mines Guide 1960], 70; While other metals such as lead at 77.140 million rials' worth, chromite at 62.436 million rials' worth and iron ore at 26.663 million rials' worth had higher export values in that year. See Veazarat Sanaye' VA Ma'aden – Edareh-ye Amar VA Motale'at, Amar-e Fa'aliatha-ye Ma'dani Iran VA Rahnama-ye Ma'aden Sal-e 1339[The Statistics of Iran Mining Activities and Mines Guide 1960], 67.

254 Siamak Zand-e Karimi, 52 & 56.

255 Siamak Zand-e Karimi, Fa'aliatha-ye O'mdeh-ye Ma'dani-ye Keshvar 1324-1334[Major Mining Activities in Iran] (Tehran: Budget and Plan Organisation, 1357 [1978]), 5.

Table 3: Iran Copper Import and Export

	1970 (tonnes)	1971 (tonnes)	1972 (tonnes)	1973 (tonnes)	1974 (tonnes)	1975 (tonnes)	1976 (tonnes)	1977 (tonnes)	1978 (tonnes)	1979 (tonnes)	1980 (tonnes)
Copper²⁵⁶ Import	200	624	1183	857	1911	3809	4243	1911	292	1381	2225
Copper Export (Ore and Concentrates)	1500	840s	660	1100	-	8700	4200	-	17000	9000	4000
World Mine Production of Copper	6,400,400	6,400,400	7,000,000	7,400,000	7,700,000	7,300,000	7,850,000	7,950,000	7,900,000	7,900,000	7,800,000

Source: Minerals UK, Iran Copper Statistics from 1970-1984

²⁵⁶ The Figures include scrap and unrefined copper.

In 1970, Ghaniabad was the main copper production plant, dating from the Reza Shah period. It was near Tehran and managed by the Edareh-ye Taslihat-e Artesh-e Shahanshahi [The Weaponry Administrative Arm of the Royal Army]. The plant had a production capacity of 3,000 tonnes annually, although frequently produced only half or even a third of that because of the shortage of copper ores in Iran. There were also two small plants in Ayeneh and Abzarchi in Tehran, and a plant named Barati in Zanjan, all three used for melting scrap copper to produce copper sheets. Moreover, there were three small plants for electrolysis of copper, named Farsad, Iran Mes, and Feyzi, but their output was almost negligible.²⁵⁷

Table 4: Copper Export and Copper Consumption in Iran 1962-1968

	1962 (tonnes)	1963 (tonnes)	1964 (tonnes)	1965 (tonnes)	1966 (tonnes)	1967 (tonnes)	1968 (tonnes)
Export	28	26	97	261	442	79	97
Import	9945	5734	5228	5522	5159	13580	12060
Ghaniabad Plant Production	-	-	-	-	500	700	800
Military Consumption	-	-	-	-	3000	3800	4700
Total Annual Consumption	9945	-	-	-	8659	18080	17560

Source: Sazeman-e Barnameh va Budjeh [Budget and Plan Organisation], Gozaresh-e Ma'aden-e Mes dar Iran [A Report on Copper Mines in Iran] (1349) [1970]: 8.

²⁵⁷ Sazeman-e Barnameh va Budjeh [Budget and Plan Organisation], Gozaresh-e Ma'aden-e Mes dar Iran: Sal-e 1349 [A Report on Copper Mines in Iran, 1970], 11.

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The exploration of the Sarcheshmeh Copper Mine was started in 1966 by Iranian mining entrepreneurs, and was almost ready for operation before the 1979 Revolution. Meanwhile, the mine was nationalised in 1972, from whence the whole project was managed by the state. The mine ownership and management during this period is divided into three stages, as follows:

1- KMC²⁵⁸ from 1966-1967: The KMC started the first exploration at Sarcheshmeh Copper Mine. The company was owned and managed by Iranian mining entrepreneurs, the Rezai brothers. After the first year of exploration the KMC reported that the size of the project was beyond their capabilities. Therefore, the Rezai brothers continued the operation in partnership with a British company, Selection Trust.

2- KCI²⁵⁹ from 1967-1971: The Rezai brothers established KCI in partnership with Selection Trust. The KCI significantly expanded the operation, however, the joint venture could not secure capital investment. The Iranian state finally stepped in, and the mine became state-owned.

3- SCMCK²⁶⁰ from 1972-1979: The mine was nationalised, with exploration and extraction undertaken by a state-owned company, the SCMCK. The presence of the state transformed development of the project, and it continued with consultation from an American company (Anaconda).

258 Kerman Mining Corporation

259 Kerman Copper Industries

260 Sarcheshmeh Copper Mines Corporation of Kerman. The company's name was changed to National Iranian Copper Industries Corporation (NICICO) when the whole of Iran's copper industry was nationalised in 1976. NICICO then covered all issues regarding the copper industries in Iran.



Figure 1: Sarcheshmeh Copper Complex (Image courtesy of NICICO)

The nationalisation of the Sarcheshmeh Copper Mine and presence of the state accelerated the development of the project and transformed the Iranian copper industry, leading to Iran being identified as a major global copper producer. A plan was formulated for the annual extraction of 50 million tonnes of 1.21 percent copper ore. Roughly 15 million tonnes of the mineral component could be transferred to the crusher, which increased in concentration to a capacity of 40,000 tonnes per day. Ultimately 145,000 tonnes of concentrated copper would go for smelting annually.²⁶¹ Initially, a \$400 million investment was received, increasing to \$450 million; and a town

²⁶¹ The Report of Annual General Meeting, Ordibehesht 6, 1352[April 26, 1973], 7.

would be constructed and a labour force trained.²⁶² However, costs rose to two-and-a-half to three times more than initially forecast.²⁶³

The preliminary projection was made on the assumption that the company would generate substantial income, based on the copper market price of \$867 per tonne in 1971, \$1,200 in 1972, and \$1,450 in early 1973. It cost \$400, including depreciation and shipping, to bring a tonne of copper to the market. Estimating 145,000 tonnes of production per year and based on the price in 1973, the company expected to generate a profit of roughly \$150 million.²⁶⁴ To illustrate the value of the Sarcheshmeh Copper Mine, comparison with the production value of a steel smelting plant is useful. A steel smelting plant with 40 to 50 billion rials' investment, annual production of 600,000 tonnes of steel, and an average price of 10,000 rials per tonne will make 6,000 million rials, roughly equivalent to \$850 million.²⁶⁵

The Iranian Mining Entrepreneurs: Rezai Brothers

The discovery of copper in the region dates back to exploration undertaken by foreign experts including A. F. Stahl, who was working as a post and telegraph expert in Iran. In his working report referring the period of 1897-1906, he mentioned the existence of copper in God-e Ahmar, in the Pariz area where Sarcheshmeh is located. However, the first discovery license was issued to Ali Entezam²⁶⁶ on 27 April 1949 in the area of Morespan, which includes

262 Ibid., 10.

263 Mehdi Zarghamee, Interviewed by author, November 3, 2016.

264 Ibid., 10.

265 Report from the Budget and Plan Organisation, Shahrivar 15, 1348 [September 6, 1969], 5.

266 The discovery certificate number was 1328/2/7-1518/357/78 and was issued to Mr Ali Entezam, a mining engineer who taught at Tehran University. Due to adverse geographical conditions, it was extended to October 1952.

the current Sarcheshmeh Copper Mine.²⁶⁷ The mine was estimated to hold a reserve of 400,000 tonnes of copper at the grade of 2 percent, with lead layers discovered 1.5 km south-west of Morsepan.

Entezam was an employee of the Company for Iranian Mines and Metal Foundries, a state institute associated with the Budget and Plan Organisation, which held a monopoly on exploitation at the majority of the large mines. The law did not allow him to be issued with an exploitation licence because employees were not permitted to be involved in mining.²⁶⁸ Entezam, therefore, transferred all his rights to Iskandar Karimi-Jahanbakhsh in 1957. Nine years later, with no activity in the mine, Karimi-Jahanbakhsh, in turn, returned the rights to Entezam.

Those days, shepherds were one of the primary sources of information about the existence of mineral resources in remote areas. Mining entrepreneurs promised them money in return for revealing information of the mineral deposits.²⁶⁹ According to Reza Niazmand, Mahmud Rezai was first aware of Sarcheshmeh Copper Mine through a shepherd.²⁷⁰ However, Abdolmajid Vakil, who was a member of the Rezai brothers' initial exploration team at Sarcheshmeh Copper Mine, stated that the Rezai brothers obtained some paper reports written in English and German, which showed that foreign experts, too, were looking for copper in the area.²⁷¹ Since the mine had already been discovered and reported by Ali Entezam, it seems likely that

267 Mohammadali Kazemzadeh, *Tarikh-e Mes-e Sarcheshmeh-ye Kerman* [The History of Sarcheshmeh Copper Mine of Kerman] (Sherkat-e Melli Sanaye'-e Mes-e Iran, 1360 [1981]), 7.

268 Research Group, 102

269 The mineral ores are of an unusual colour and are recognisable by ordinary people.

270 Aliasghar Sa'idi, *Technocracy and Syasatgozari-ye Eqtesadi dar Iran be Revaia-e Reza Niazmand* [Technocracy and Economic Policy Making in Reza Niazmand's Narrative], 217.

271 Abdolmajid Vakil, "Cheguneh Mes-e Sarcheshmeh Kashf Shod?" [How Sarcheshmeh Copper Mine was Discovered?], *Etemad Daily*, Bahman 3, 1388 [January 23, 2010], 12.

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information was available from other sources, such as official mining organisations — a much more likely story!

There was an opportunity for both the Rezai brothers, who were eagerly seeking investment in mineral resources, and Ali Entezam who was looking for a deal with the discovery license. They then came to an agreement to transfer the discovery license to the Rezai brothers under a newly established company called KMC.²⁷² The KMC was founded on 21 April 1966 with 10 million rials of initial capital.²⁷³ Along with promising a valuable ore reserve, Sarcheshmeh also favoured the Rezai brothers because it was not far from their other mining projects — the Faryab and Esfandagheh chromite mines. Under the guidance of two local men named Hossein Nozari and Ali Azarang, a survey team led by Vakil was appointed to observe the area.²⁷⁴ The team's initial observations led it to advise the company to begin exploration. Locals were hired to work on the project, and work commenced, mostly focused on the east side of what is now the mine.

272 Kerman Mines Corporation. The agreement between Entezam and KMC included: 1- KMC has to pay 150,000 rials to Ali Entezam. 2- If KMC had received an exploitation license they would have had to pay another 150,000 rials to Entezam, and would have had to pay 2 percent of the value of the copper and lead extracted.

273 The Managing Director was Mahmud Rezai; the board of directors included Mohammad Ali Mas'udi, Mahmud Rezai, and Abbas Rezai; and the main shareholders were Mahmud Rezai, Mohammad Reza Rezai, Amir Reza Rezai, Abbas Rezai, Ms Shahrzad Rezai, Mohammad Alamutinama, and Mohammad Ali Mas'udi.

274 Abdolmajid Vakil claimed that he was the first person who discovered the Sarcheshmeh Copper Mine. However as was displayed that is not true. See Abdolmajid Vakil, "Chegunch Mes-e Sarcheshmeh Kashf Shod?" [How Sarcheshmeh Copper Mine was Discovered?], Etemad Daily, Bahman 3, 1388[January 23, 2010], 12.



Figure 2: Sarcheshmeh Copper Mine (Image courtesy of NICICO)

The KMC's operation in Sarcheshmeh Copper Mine coincided with Iran's remarkable industrial growth in mid-1960s, which peaked with one of the highest rates worldwide. The government's attention to industry and its provision of facilities laid the ground for those from the private sector, who increasingly desired to shift their business activities towards industry and mining, to participate in these activities. Economic programmes, international trends and political events inspired the emergence of a younger generation of entrepreneurs, educated in Europe and North America, who formed a group later identified as Iran's industrial entrepreneurs. Alinaqi Alikhani, Minister of Economy from 1963 to 1969, once said "Iran was a unique country in the world in the 1960s in consideration of giving priority to the private sector. Even though the state's income was mostly from oil, not the tax, that gave them great power over the

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private sector, but our treatment of the private sector was much more tolerant than in other countries such as Turkey, India, and Egypt.”²⁷⁵

The state incentive policy incubated a new class of industrial bourgeoisie who took more risks, gradually drawn into investing in modern manufacturing and production and contributing to the astounding industrial growth rate which increased from 12 per cent to 16 per cent in the mid-60s.²⁷⁶ Their business organisations and management were mostly family-based, which is ascribed as one of the main characteristics of Iran’s industrial entrepreneurial structure.²⁷⁷

Despite the increase in industrial entrepreneurs, the mining sector was still not as popular as other industries. Those prominent in the mining sector were the Rezai brothers, the Rastegar brothers, and Dr Shabahang. Chief among them were the Rezai brothers, and specifically Mahmud Rezai who was known as a giant among national mining entrepreneurs, as well as one of the most significant persons in the Middle East in the exploitation and export of chromium.²⁷⁸ The Rezai brothers became even more renowned when they began their activities at the Sarcheshmeh Copper Mine.

Born into a wealthy family, the Rezai brothers, like most of the Iranian industrial entrepreneurs, were primarily involved in trade and retailing. As one of their early businesses, they ran a luxury boutique

275 Alinaqi Alikhani, “Shah Farifteh-ye Daramadha-ye Nafti Shod” [High Oil Income Deceived the Shah], Interviewed by Mohammad Taheri, *Tejarat-e Farda Weekly*, no. 56, Sharivar 16, 1391, 57; Hossain Dehbashi, *Eqtesad va Amniat: Khaterat-e Alinaqi Alikhani* [Economy and Security: Alinaqi Alikhani’s Memories] (Tehran: Sazeman-e Asnad va Ketabkhaneh-ye Melli-ye Iran, 1393), 104.

276 Sa’id Leylaz, “Naft San’at ra Kosht” [Oil Devastated Iran’s Industry], *Tejarat-e Farda Weekly*, no. 70, Azar 30, 1392 [December 21, 2013], 24.

277 Robert E. Looney, *Economic Development of Iran: A Recent Survey with Projections to 1981* (Praeger Publisher, 1973), 164.

278 Khosro Ehyai, *Esteqamat-e Kerman Weekly* (Special Edition on the 40th Anniversary of the Sarcheshmeh Copper Mine), 26; Rezai brothers explored Sarcheshmeh Copper Mine after extraction of chromite from the mines of Esfandagheh in the south Kerman province had already begun.

named Peykan, in Tehran.²⁷⁹ Meanwhile, they entered different fields of business, including importing cigarettes and fabrics, as well as managing the Mayak theatre group, until they became involved in the mining and steel industries. Indeed, tracing the course of their commercial career unfolds much about the progress of the new Iranian entrepreneurs during the 20th century. Their father was a wealthy tradesman from Sabzevar in the Khorasan province, but the boys lost their father when they were children and were raised by a disciplinarian mother and step-father. Their mother's encouragement led them to enter higher education in the United States and France, which provided them with an opportunity to gain a wide range of experience and a broader vision of economic and business affairs.



Figure 3: The Rezai brothers with their mother (Image courtesy of Tejarat Farda Weekly)

279 Abbas Milani, *Eminent Persians: Men and Women Who Made Iran 1941-1979* (New York: Syracuse University Press and Persian World Press, 2008), 668.

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The start of the Rezai brothers' mining activities coincided with the British embargo on Iranian oil in the 1950s. The economic pressure of the sanction drove the state to focus on other sources of income, including mining resources. As a result, the state ran an incentive policy to persuade local entrepreneurs to invest in mining development. At the time, the Rezai brothers had already started to explore chromite deposits near their hometown of Sabzevar.



Figure 4: Mahmud Rezai -1977

Unlike the older generation, they benefitted from a different financial environment including selling shares, arranging loans, making joint investments with foreign companies and venture capitalists.²⁸⁰ Moreover, the emergence of modern banking, and long-term credit with low-interest rates offered by the state, helped the new generation of entrepreneurs to finance their businesses. The establishment of two specialist banks, the Bank-e E'tebarat-e Dowlat (Bank of State Credits), a state-owned bank, and the private Bank-e Tose'eh-ye San'ati va Ma'dani (Bank of Mining and Industrial Development) played a significant role in supporting industrial and mining investments. However, that made the industrial entrepreneurs more dependent on the low-interest loans provided by the state-run banks. Since the state also injected a vast amount of capital into the industrial banks from the sale of oil, the state could then control both the industrial structure and trends in private investment.²⁸¹

Iran's industrialisation, which was one of the aims of the White Revolution, moved quickly with the rise in oil income. It enabled the state to allocate sufficient credit for well-known entrepreneurs to develop their businesses in the 1960s and 70s. Besides, high inflation led to enormous profits from the trading of land, which enabled large real estate holders to accumulate capital. Moreover, the import substitution policy put in place to support the development of domestic goods, for instance by offering loans at low interest, persuaded a number of the Iranian merchant bourgeoisie and

280 Aliasghar Sa'idi and Fereyduun Shirinkam, *Moqe'iat-e Tojar VA Saheban-e Sanaye' dar Iran-e Asr-e Pahlavi: Zendegi VA Karnameh-ye Haj Mohammad Taqi Barkhordar* [The Status of Traders and Industrial Owners in Pahlavi Era: The Life and Business History of Haj Mohammad Taqi Barkhordar] (Tehran: Gam-e No, 2009[1388]), 260-261.

281 Ibid.

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traditional landowning families, such as the Bayat, Moqadam, Afshar and Farmanfarma, to change the field of their business to manufacturing and industry.

The new entrepreneurs also came from less well-known merchant families, such as Mahmud Rezai and Mahmud Khaiami, whose business prowess relied on the state industrial policy as well as their own talents which drew them into business as independent tycoons. However, their independence was not preserved forever, as forging close relationships with the power centres and influential people including Royal Court, high-ranking politicians and Generals in Army necessitated payment for information and influence to enhance their commercial progress.

The four Rezai brothers — Ali, Mahmud, Abbas and Qasem — worked together on specific projects while following their individual business interests. Moreover, Ali and Qasem became involved in politics, with Ali becoming a member of the Senate Parliament and Qasem, head of the Office of Tourism (Sazeman-e Jalb-e Sayahan) in two different governments. The positions helped them build an extensive network of influential persons in the political strata. The Rezai brothers also tried to form a relationship with the Royal Court, to become closer to the royal family as one of the critical power centres in the Iranian political hierarchy. For instance, Mahmud Rezai had a close friendship with the Shah's sister, Ashraf. The brothers tightened the relationship through financial means in the form of gifts or supporting business projects. For example, Ali Rezai made a gift to

the Queen of a priceless necklace, a precious item which in the end the Shah ordered should be kept in a museum.²⁸²

The growth of industrial businesses as well as the increasing the number of industry owners gradually formed a recognisable class, socially and politically influential, until in time their social connections and trade networks enabled them to exert influence on economic policy.²⁸³ While large landowners and successful merchants had become two prominent economic groups in the early Reza Shah period, they were replaced during Mohammad Reza Shah's reign by new traders and industrial pioneers, along with people like bankers, consultant engineers and contractors.²⁸⁴ In total, 85 per cent of active Iranian companies in different fields were controlled by a specific economic group, so that the industrial bourgeoisie became powerful and influential in the late Pahlavi dynasty. This transformation affected the political structure too, for while the large landowners occupied the majority of seats in the National Parliament in Reza Shah's time, modern bureaucrats would replace them when Mohammad Reza Shah came in power.

The industrial entrepreneurs also established a Chamber of Industry and Mines in order to pursue sectorial affairs through their specified institute. This was a strategic decision which increased their impact on economic planning. Previously, industrial owners had conducted their affairs through the Chamber of Commerce, which was mostly controlled by traders. Industrialists had less authority in the Chamber

282 Ali Rezai quoted in Abbas Milani, *Eminent Persians: Men and Women Who Made Iran 1941-1979* (New York: Syracuse University Press and Persian World Press, 2008), 665.

283 Aliasghar Sa'idi, "Payan-e Yek Karafarin: Karafarin VA Sepehr-e Syasi" [The End of an Entrepreneur: Entrepreneur and Political Sphere], *Mehrnameh Monthly* 9, Esfand 1389 [March 2010], 22-23.

284 Ashraf and Banuazizi, *Classes in Pahlavi Period*, *Encyclopaedia of Iranica*, 103.

of Commerce and found themselves unable to improve sectoral benefits towards themselves. The first Chamber of Industries and Mines was, therefore, set up by 30 industrialists and mine owners in 1962.²⁸⁵ Representatives of the Chamber of Industries and Mines included Ali Rezai and Mahmud Rezai, along with other prominent industrial owners such as Mohammad Taqi Barkhordar, Ali Khosroshahi, Qasem Khosroshahi, Ahmad Khayami, and Mahmud Khayami.²⁸⁶

Although the private sector was identified as one of the arms of Iranian industrialisation, the mining industry had not found significant support for expansion among the national entrepreneurs. This was partly due to the historical weakness of the Iranian bourgeoisie, financially and technologically, as well as structural barriers, as has been discussed previously. That was true of the Rezai brothers, despite their leading position in Iranian mining. As a result, Sarcheshmeh mega project was soon assessed to be far beyond their abilities, both in terms of finance and technology, and they were unable to proceed with the project on their own. However, the country's strategy regarding industrial development, economic infrastructure, human resources, and more importantly political stability and a promising economic growth rate, predicted a positive future in which foreign companies could be involved in the mining project in Iran. The Rezai brothers considered some potential candidates across the world, and finally brokered an agreement with a famous British mining company, Selection Trust, to survey the site. A technical group came to visit from 29 August 1967 to 7

285 Majaleh-ye Otaq-e Bazargani [Chamber of Commerce Magazine], Khordad 1347[June 1968]: 7-44.

286 G. Bricault, *Major Companies of Iran* (London: Graham and Trotman, 1977).

September 1967. Their report assessed that “Selection Trust should follow up the initial contact as strongly as possible”.²⁸⁷ Matters concluded with the signing of an agreement between Mahmud Rezai, trading as KMC, and Selection Trust, which resulted in the establishment of KCI on 30 November 1967.

The contract was so overwhelmingly in favour of the Iranians that afterwards questions were raised about the reason for Selection Trust signing it. Shares were divided so that Selection Trust received 30 per cent and the Rezai brothers 70 per cent, which enabled the Iranians to take control of the company.²⁸⁸ The objective of the contract was stated as the discovery, exploration, and extraction of copper in the Sarcheshmeh mine. The initial exploration and geological costs, paid for by the Rezai brothers, were to be included in the total capital. The brothers were to be responsible for buying property, providing all tools and machinery, meeting local disbursements and paying the salaries of the British staff. For their part, Selection Trust would be in charge of technical management and preparing the finances. The requisite investment was estimated at some \$130 million which was entirely entrusted to Selection Trust; moreover, all risks were to be borne by Selection Trust.²⁸⁹

By the end of 1968, six discovery machines had been used to sink exploration boreholes, with a total combined depth of 10,180 m, and by 1969 there were 160 wells with a combined depth of 26,884 m.²⁹⁰

The outcome was a mine bigger than their initial assessment, for the

287 Selection Trust Archives, The Field Operation at Sarcheshmeh 1967-1970, 3.

288 Aliasghar Sa'idi, *Technocracy and Syasatgozari-ye Eqtesadi dar Iran be Revaia-e Reza Niazmand* [Technocracy and Economic Policy Making in Iran: Reza Niazmand's Narrative] (Tehran: Loh-e Fekr, 1394 [2015]), 220.

289 Selection Trust Archives, The Field Operation at Sarcheshmeh 1967-1970, 7.

290 Letter of Budget and Plan Organisation, September 14, 1969.

estimate was 82,000 tonnes of copper per year, but further investigation had suggested the yield might be up to 150,000 tonnes annually.²⁹¹ The Sarcheshmeh Copper Mine was the Selection Trust's first foray into the Middle East, and they were keen not to lose this precious project. Therefore, the Trust hired a former British diplomat, one Anthony Roos Moore, who had worked in the Middle East and was familiar with the people and power structures of the region. He was then appointed to assist with negotiations with the Iranian government, as well as with their Iranian partners.²⁹²

The State, Technocrats, and Copper Industry Development

The mega scale of Sarcheshmeh Copper Mine and its ties with the industrial development of Iran was a significant project for the Shah, as he personally followed developments, despite the project being in hands of the private sector. The Shah even met the Selection Trust's managers at the Sa'dabad Palace and expressed his gratitude for their satisfactory work, saying: "Sarcheshmeh's reputation is widespread, everybody is talking about it."²⁹³ He chased the progression of the project in his day-to-day meetings with ministers as well as giving them advice and commanding that they lead its establishment. For instance, when the Rezai brothers had made no progress with obtaining a loan, they decided primarily to extract those parts of the mine which contained high-grade copper, then moving to lower grade parts, but the Shah objected and insisted that the whole mine must be

291 Warton-Tiger to Mahmud Rezai, 18 March 1971, Selection Trust Records, London School of Economics and Political Sciences.

292 Obituary, "Anthony Roos Moore," the Daily Telegraph, December 13, 2000, <http://www.telegraph.co.uk/news/obituaries/1378049/A-R-Moore.html>.

293 Report of Meeting at Sa'dabad Palace, November 18, 1969. Selection Trust Records, London School of Economics and Social Sciences.

extracted simultaneously.²⁹⁴ A few days later, the Shah asked ‘Alam, the Minister of Royal Court, to summon the British ambassador to clarify that if the Shah were not assured about the method of extraction at Sarcheshmeh Copper Mine, he would not allow Selection Trust to proceed with the project.²⁹⁵

As was shown, the Shah’s intervention in this project was in line with national strategic interests. The Shah and his technocrats were conscious of the effect a dependency mechanism might have on the nature of relationships with foreign investors. One of their main concerns was that Iran should be attractive to core consumer countries as a source of raw materials.²⁹⁶ In the above meeting, Mr Thomas, a member of the Selection Trust team, suggested that it would be better to focus on establishing copper open casts and concentrate, with no smelting or other manufacturing industries. However, the Shah vehemently expressed his objection to that and responded:

"That would be impossible. It might be all right for savages in Africa but not in Iran! It would be absurd to send the powder out of Iran and then bring copper back again. Iran should have its copper manufacturing industries."²⁹⁷

In another conversation with a British diplomat regarding with the status of Selection Trust at Sarcheshmeh Copper Mine, the Shah

294 Assadollah ‘Alam, *Yadashtha-ye ‘Alam Jeld-e Dovvom* [‘Alam’s Memories Vol. 2] (Tehran: Mo‘in, 1385[2006]), 137.

295 Ibid., 140-141.

296 In his *Theory of World System*, Immanuel Wallerstein divides the countries into three groups of core, periphery and semi-periphery. His idea is based on inequality in political and economic power between the countries across the globe. The core refers to dominant countries while the periphery indicates the dependent and undeveloped regions. As Wallerstein states, the periphery became the source of supplying raw material for manufacturing products at the core region, and the manufactured goods will then dominate their market at the core region. See Immanuel Wallerstein, *World System Analysis: An Introduction* (London: Duck University Press, 2005).

297 Report of Meeting at Sa’dabad Palace, Selection Trust Records, London School of Economics and Political Sciences.

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articulated that British companies must learn to treat Iran more as an equal, not as an undeveloped country.²⁹⁸ The Shah then strove to implement a policy to make the country self-sufficient with regards to strategic commodities that it could manufacture at home. To do that, it was also stipulated that the company must never pre-sell more than a year's worth of copper, in order to ensure that the manufacturing of all copper into copper products should take place inside Iran.²⁹⁹

The extensive scale of the Sarcheshmeh Copper Mine created an opportunity for establishing an advanced copper industry to help boost the national economy.³⁰⁰ Indeed, according to a comparison between the Anaconda Company's income, which was mostly earned from the extraction of copper deposit in Chile, and Iran's oil income, some of the Shah's consultants even claimed that copper could have the potential to replace oil in Iran's export basket in the future.³⁰¹ The Shah publicly expressed this in his inaugural speech at Sarcheshmeh in 1976, when stated that Sarcheshmeh Copper Mine could enable Iran to shut down its oil wells to preserve them for future generations.³⁰² Aside from uncertainty about the accuracy of the Shah's claim, it is also indicative of his horizon and his desired strategy for the development of Iran. The Shah's prediction about the

298 FCO 17/1526, The National Archives. It must be considered that there was a robust nationalist discourse in Iran which insisted that the country's natural resources must be nationalised and owned by the state, not foreign countries. The matter was raised, for instance, in an article in *Kayhan International Newspaper*. This matter was also mentioned in a letter from a British diplomat, that "their [i.e. the Iranians] thinking is coloured by interpretation of the history of their oil industry and their determination not to be taken for more rides by the foreign capitalist." See FCO 17/863, The National Archives, July 24, 1969.

299 Royal Office to Reza Niazmand, Managing Director of the Sarcheshmeh Copper Industries Corporation of Kerman. Reza Niazmand's personal records, Sharivar 12, 1352 [September 3, 1973].

300 Robert Sisselman, "Copper: Iran's Latest Desert Bonanza," *Engineering and Mining Journal*, (February 1978), 58.

301 Reza Niazmand, "Nagofteha-ye Dr Niazmand az Chegonegi-ye Rahandazi-ye Mes-e Sarcheshmeh" [Niazmand's Untold on Formation of Sarcheshmeh Copper Mine], *Mes Press*, Khordad 12, 1392 [June 2, 2013]

302; Abdolreza Mohammad-Rezai, Interviewed by Author, December 5, 2013.

inconsistent status of oil in the future of the global economy, and the fact that oil would not be a reliable income-generating commodity indefinitely, showed that he imagined founding an advanced pathway of development to lead Iran's economy towards less dependency on oil. His strategic approach was intended to preserve Iran from the delicacy of being a single product economy. Therefore, he aimed to promote other industrial sectors, as well as extractive resources, to construct Iran's economy on a multi-income basis.

The second point is the Shah's concern for future generations, which in the 1980s matured into the idea of sustainable development, prioritising preservation of the environment and protecting the planet from the damage caused by over-aggressive development in order for it to remain habitable. From an ontological point of view, the idea goes much further, arguing that right and ownership it is not determined solely on the present; instead, it traverses time to be made applicable to the future. In other words, we must respect the next generations' ownership of current resources and preserve it by applying a sustainable method in extracting natural resources.

Nationalisation of Sarcheshmeh Copper Mine 1972

The scale of the Sarcheshmeh copper project faced the KCI with a financial shortage. They approached some financial institutions and foreign banks to obtain a loan, but none showed interest, mainly because of the nature of the contract as well as a downtrend in the copper market, which most financial institutions assessed as a high-

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risk investment.³⁰³ The finance sector required a guaranteed ten years' pre-sale copper blister of an annual 80,000 tonnes without agreement on a minimum price, but this was not accepted.³⁰⁴ Therefore, the Rezai brothers and Selection Trust made an offer to the Iranian government stating that if the government was interested in investing in the mine, the terms of the contract could be amended to allow for it to join the business. However, the answer was again negative — the state declared its preference for the mine to be managed by the private sector.³⁰⁵

From November 1967 until March 1971 Selection Trust maintained an active presence in the project as well as being intensely involved in negotiations with state representatives in a bid to make their position more stable.³⁰⁶ However, the negotiations made no satisfactory progress, and as the investment outlook was not clear, the plant closed for a time. Since Selection Trust assumed that its presence might improve their chances of remaining in the project, at least as a contractor, they continued on site, but only on a minimum operational scale. Meanwhile, the other giant corporations tried to grasp this opportunity to challenge Selection Trust's position by making offers. Indeed, in some cases, foreign ministries and embassies actively promoted and supported their companies in their efforts to be given

303 E. C. Wharton-Tiger (Managing Director of Selection Trust) to Mahmud Rezai, March 18, 1971, Selection Trust Records, London School of Economics and Political Science, 2.

304 *Seherkat-e Motale'at-e Tarha-ye Jame'-e Felezat-e Iran*, "Baresi-ye Zaminshenasi VA Ekteshafat Kanha-ye Mes dar Iran, Vol II" [The Analysis of Geology and Discoveries of Copper Mines in Iran], (Veazarat-e Ma'aden va Felezat, Bahman 1368[February 1989]), 62-63.

305 Abbas Milani, *Eminent Persians: Men and Women Who Made Iran 1941-1979* (New York: Syracuse University Press and Persian World Press, 2008), 671; Mohammadali Kazemzadeh, *Tarikh-e Mes-e Sarcheshmeh-ye Kerman* [The History of Sarcheshmeh Copper Mine of Kerman] (Sherkat-e Melli-ye Sanaye'-e Mes-e Iran, 1360 [1981]), 12.

306 Selection Trust's interests were supported by the British Foreign Office. For instance, see FCO 17/1526, Confidential Report of Foreign Office, November 11, 1971, 3, The National Archives.

contracts for the construction or operation of the mine.³⁰⁷ Negotiations began to heat up as different companies contested in public as well as backstage. Among the rival concerns was City Services with Kennecott; a consortium led by the American Smelting and Refining Company (ASARCO); and other companies including Phelps Dodge from Japan, Selection Trust from Britain, Pechiney from France,³⁰⁸ Union Miniere from Belgium and a company from West Germany.³⁰⁹

Selection Trust, still greatly interested in this project, offered five proposals.³¹⁰ From mid-April to 26 May 1971, at least three times they sent a high-profile team to negotiate with the Minister of Economy, Houshang Ansari.³¹¹ However, the meetings made no progress, which was far from good news for Selection Trust as it was left with no choice but to leave behind a rare and valuable opportunity, which featured in all the international economic newspapers of the time.³¹² Finally, in a regretful letter written by the Managing Director of Selection Trust to his employees, it was announced that the company had stopped working at Sarcheshmeh Copper Mine.³¹³ Selection Trust ceded its rights in March 1971.

307 For instance, a letter from the Iranian Foreign Minister to the Iranian Economic Minister mentioned that the Iranian ambassador to Belgium had been talking to the Belgian Minister of Foreign Affairs about a request from a Belgium company for consideration as a contractor for the Sarcheshmeh Copper project. The Belgian Minister expressed concern that competitors, mainly US companies, might be chosen not for technical and business reasons. July 25, 1355, Archive of Iran Presidency Institution.

308 Despite a good offer, Pechiney could not meet the terms; it seems that political reasons were involved in omitting Pechiney from the competition. It was said that the Shah had become incandescent with rage when French President Pompidou declined the Shah's invitation to the 2,500 Year Celebrations of the Persian Empire in Iran. He dropped Pechiney and so there was no chance for a French company to become a business partner in the project. FCO 17/15/26, The National Archives.

309 FCO 17/1526, letter of the British Embassy in Tehran, 1 June 1971, The National Archives.

310 FCO 17/1526, letter of the British Embassy in Tehran, 26 May 1971, The National Archives.

311 Ibid.

312 Financial Times, December 10, 1967; Financial Times, January 5, 1971; Mining Journal, December 15, 1967; Metal Bulletin, December 19, 1967; Scotsman, December 11, 1969.

313 Selection Trust Annual Report, Selection Trust Records, London School of Economics and Political Sciences, 1971.

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After a long period of negotiation with various companies as well as financial institutions, the High Economic Council of Iran finally declared the nationalisation of Sarcheshmeh Copper Mine on 13 December 1971. In the meeting, the Shah frequently championed the viability of the Sarcheshmeh copper project.³¹⁴ Eventually, the mine became state-owned, and the SCMCK was established on 3 July 1972.³¹⁵ Then, the Iran copper industry was nationalised on 11 July 1976, and the company was renamed NICICO,³¹⁶ managing and controlling all copper mining activities in the country.³¹⁷

The nationalisation of the Sarcheshmeh ore reserve and the surrender of its ownership to the state created a controversy, leading to two contradictory accounts regarding nationalisation of the mine. To examine the two different narratives, attention is drawn to the specifications of each period and the role of different agents in mobilising the project, in order to adumbrate a larger picture of the relationship between the state and the industrial entrepreneurs. It also laid the ground for further discussion about the two different narratives and examining the claims, by studying the evidence within the economic and political structure.

The first version was spread mainly by the original holders of the mine, the Rezai brothers, who claimed that the Shah coerced them, so that they had no choice but to agree to nationalisation; a claim

314 High Economic Council report.

315 Sarcheshmeh Copper Complex guidebook, 3.

316 National Iran Copper Industries Corporation

317 July 11, 1976 [Tir 20, 1355] was designated the national day of the Iran Copper Industries. Festivals and celebrations were arranged in cities associated with the NICICO, such as Bandar Abbas, Kerman, Sarcheshmeh, and Tehran.

supported by some Iranian historians such as Abbas Milani.³¹⁸ In his book, *Eminent Persians*, Milani states that when Mahmud Rezai received news of the nationalisation of the Sarcheshmeh mine, he called ‘Alam, Minister of the Royal Court, requesting support for a suspension of the order, but the answer was negative as A‘lam stated that “there is no chance as it is the Shah’s order”. Then Mahmud Rezai went to great lengths to try to gain an audience with the Shah, but his request was refused.³¹⁹ Ali Ebrahimi, Mahmud Rezai’s nephew and his deputy at Sarcheshmeh mine project, also affirmed the allegation and said that: “The nationalisation of Sarcheshmeh did not take place on a regular base. In less than six months, Sarcheshmeh was nationalised with no notice given to the owners. I was abroad when its news was broadcast from the radio news programme.”³²⁰ The claims sometimes go further and state that the Shah effectively confiscated the mine. However, according to official evidence that was not true, and the state repaid all the costs and forfeited privileges to the Rezai brothers and their partner, the Selection Trust Company. Moreover, in a broader context, some people argued that the nationalisation of industries in Iran was evidence of the totalitarianism of the Shah’s regime, as it revealed the Shah’s intention to dominate the whole economy.³²¹

On the other hand, a slightly different narrative was given, which received more credence than the first. It principally suggests that

318 Abbas Milani, “Tajadod dar Iran [Modernity in Iran],” YouTube video, Special Talk, posted by “Persian Atheist /”, 12 December 2016, accessed February 19, 2014, <http://www.youtube.com/watch?v=ILN5JxallI4M>

319 Abbas Milani, *Eminent Persians: Men and Women Who Made Iran, 1941-1979* (New York: Syracuse University Press and Persian World Press, 2008), 671.

320 Ali Ebrahimi, Interviewed by Author, March 16, 2014.

321 For instance, the Iranian economics, Sa’id Leylaz, raised that argument in an interview by the author. In Sa’id Leylaz, Interviewed by Author, May 17, 2016.

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although there was no force on the private sector to sell the mine, no other choice remained to them. The state stepped in to take the project to the next level, and ultimately the Rezai brothers gave away their rights under very fair terms.³²² In the end, while observations reveal the invalidity of both claims, it means that it happened neither by force nor through free choice, but nationalisation of Sarcheshmeh Copper Mine occurred as a legal procedure based on Iran's industrial development strategy.

The government's focus on industry and its provision of facilities to the private sector resulted in considerable industrial growth during the 1960s.³²³ However, based on Iran's industrialisation strategy, the state was designated a fundamental role within that process.³²⁴ According to Jahangir Amuzegar: "The state tried to establish an economic democracy."³²⁵ To achieve that, all resources and industries which were crucial to the common interest were placed in public hands. Nationalisation was applied to strategic industries such as copper, steel, petrochemicals, airlines, railways, communications media, and natural resources such as water, fishing rights, forests, oil and mineral deposits, and farmland.³²⁶ Chief among them, as Hirschman states,

322 Reza Niazmand, Interviewed by Author, January 4, 2015.

323 Sa'id Leylaz, "Naft San'at ra Koshat" [Oil Devastated Iran's Industry], *Tejarat-e Farda Weekly*, no. 70, Azar 30, 1392 [December 21, 2013], 24.

324 However, that almost passionately supportive attitude of the private sector did not last long, as the Shah's approach gradually changed until by the late 1960s the private sector had lost its importance in his economic plan. As Leylaz states: The change mainly resulted from the rapid rise of oil revenue which increased the Shah's confidence in proceeding the industrialisation in the absence of a robust private sector. For instance, all metal smelting industries and electrical power generation were taken out of the private sector; and the Shah even wanted to nationalise the production and export of carpets. See Sa'id Leylaz, "Naft San'at ra Kosht" [Oil Devastated Iran's Industry], *Tejarat-e Farda Weekly*, no. 70, Azar 30, 1392 [December 21, 2013], 25.

325 Jahangir Amuzegar (1920-2018) was an Iranian economist and politician. He served as Iran's Minister of Commerce (1962-1963) and Iran's Minister of Finance in 1962. He also held the position of executive director of International Monetary Fund.

326 Jahangir Amuzegar, *Iran: An Economic Profile* (Washington DC: The Middle East Institute, 1977), 11-12. Insisting that strategic industries must be state-owned reveals that something else caused concern for the Shah -that a powerful private sector would gain independence; indeed it might start competing

steel, copper, and car manufacture had close connections with other industries which could expand the economy considerably if promoted by the state rather than the market.³²⁷

Amuzegar's statement contains two vital points regarding the state's significant investment in mining development. One is a judicially-based ethical cause, which insists that ownership of natural resources must be in the hands of the public. The second is a political cause which avows that strategic industries must be under the control of the state.

There is also a fundamental cause which is raised in an argument entitled 'infant industries'. The idea put forward intervention of the state in establishing and running new domestic industries in the absence of a robust private sector, as the newly-emerging industries faced enormous difficulties during their establishment, as well as during their future operation when production was flowing to the competitive market. As a result, in order to protect the new industries in their embryonic stage of industrial development, some economists recommended a state interventionist solution which was presented as the Infant Industrial Argument in order to protect the fledgling industry against market fluctuations and foreign competitors. The idea was initially promulgated by Fredrick List and then developed by Alexander Hamilton, and seeks to justify the presence of the state in a specific industry or economic sector in the early years of its

with the government. Moreover, metals were crucial for some industries, and material prices could have a direct effect on a product the primary component of which is one of the base metals, raising the price for end users.

327 See Ha-Joon Chang, *Economics: The User's Guide* (London: Penguin Books, 2014), 137.

establishment.³²⁸ Apart from Britain and Hong Kong, and to a certain extent India, most other countries in the nascent stages of industrialisation provided significant contributions from their governments, which ran certain industrial sectors.

As far as Sarcheshmeh Copper Mine was concerned, the Rezai brothers' inability to establish the project would predictably lead them into further crises when the mine reached its operational stage and the output had to be placed on the free market to compete with other contenders. In effect, the Iranian copper industry, which was founded on the discovery and establishment of Sarcheshmeh Copper Mine, would not be able to meet the company's principal targets which would be pushed out by market forces. Therefore, the presence of a powerful agent, here meaning the state, in the Iranian copper industry, would be influential in constructing a strong copper industry in order, primarily, to protect the freshly established industry from the vicissitudes of the competitive metal market, and then to promote its development to the top.

Based on advice from technocrats, mainly from Reza Niazmand, the first managing director of the SCMCK, the Shah agreed that a fair package should be offered to the Rezai brothers and Selection Trust, although legally the state was not obliged to pay.³²⁹ Niazmand was principally concerned with settling up with the Rezai brothers and Selection Trust.³³⁰ The settlement process was undertaken twice. The first time, Niazmand asked Qasem Rezai, the youngest of the Rezai

328 Mehdi Shafaeddin, "Fredrick List and the Infant Industrial Argument," in the *Pioneer of Development Economics: Great Economists on Development*, ed. K.S Jomo (London: Zed Books, 2005), 42.

329 Reza Niazmand's notes. In Reza Niazmand's personal records.

330 Some even went further and claimed that the Shah effectively confiscated the mine, but as will be explained the state repaid all the costs and forfeited privileges to the Rezai brothers and Selection Trust.

brothers, to bring official sanction from the other owners for settlement. According to their agreement, the SCMCK must pay for all lands that had been bought, mining instruments that were accounted for, and administrative costs. However, Mahmud Rezai later objected and claimed that the Sarcheshmeh Copper Mine was worth much more.³³¹ His claim was delivered to the Shah, who ordered an audit of Mahmud Rezai's assertion, which was undertaken by an assessment team. The Shah personally reviewed different packages with Mohammad Safi Asfya, the deputy prime minister, and Farokh Najmabadi, Minister of Industry and Mines, and the final assessment committed the SCMCK to payment as follows:

1- Those expenditures paid by KMC and not settled by KCI, were to be paid off according to a 1971 balance sheet. That was in exchange for the transfer of an exploitation licence and received assets and their rights. 2- They should pay 10 per cent annual interest on those unsettled expenditures to KMC until the date of pay-off. 3- Payment to be made of the equivalent of two and a half million British pounds to KCI at the exchange rate of the Iran Central Bank's rials in five annual instalments. 4- Payment of forty million rials to KCI in five instalments, as a reward for their discovery of the mine. 5- 1.4 million British pounds to be paid to Selection Trust in two instalments as reimbursement of their expenditure on the mine. Interest to be added to the second instalment. 6- 250,000 British pounds to be paid to Selection Trust for its further activities at the mine after the expiry of

³³¹ Letter of Mahmud Rezai to the Shah, dated Tir 29, 1351[July 20, 1972], Reza Niazmand personal records.

its contract with its Iranian partner.³³² However, Mahmud Rezai was again displeased with the new assessment and let it be known that he had expected a somewhat better offer. In response the Shah issued a veiled threat, saying, “Tell him if he does not accept it, we will call for nationalisation of the Sarcheshmeh Copper Mine!”³³³

In conclusion, the nationalisation of the Sarcheshmeh Copper Mine was based on Iran's industrial strategy and the weakness of the industrial entrepreneurs in a legal process. Therefore, even if the private sector had been able to resolve the financial issue, there was a high probability that the state would still have asked for acquisition of the mine based on the principle that the state must control Iranian heavy industry and strategic metals. As a result, the nationalisation of the Sarcheshmeh Copper Mine was neither a direct compliance with the Shah's will without a developmental framework background nor, according to Alikhani's claim, were there “some roots of socialism in the Shah's view, not in manner but aims”,³³⁴ which he raised in response to a question about the growth of nationalisation of industries and less consideration being given to the private sector in the 1970s. It also undermines the allegation that the Pahlavi regime's totalitarian mode of governance wished to control the whole economy

332 According to the correspondences and records of the meeting on the transition of Sarcheshmeh Copper Mine, Reza Niazmand's personal records.

333 Aliasghar Sa'idi, *Technocracy VA Syasatgozari-ye Eqtesadi dar Iran be Revaiat-e Reza Niazmand* [Technocracy and Economic Policy Making in Iran: Reza Niazmand's Narrative] (Tehran: Loh-e Fekr, 1394 [2015]), 222.

334 Alinaqi Alikhani, “Shah Farifteh-ye Daramadha-ye Nafti Shod” [High Oil Income Deceived the Shah], interviewed by Mohammad Taheri, *Tejarate Farda Weekly*, no. 56, Shahrivar 16, 1391 [September 6, 2012], 39; Asadollah 'Alam, 'Alam's Memories Vol.2, 335.; Hossein Dehbashi, *Eqtesad va Amniat: Khaterat-e Alikhani* [Economy and Security: Alikhani's Memories], 200.

by nationalising industries, as Sa'ïd Leylaz claims, and a was despotic oriental society as Abbas Milani states.³³⁵

Therefore, founded on the high political stability and rapid economic growth of Iran in the 1960s, and the state's access to considerable oil revenue which enabled them to cover the shortfall in the expert knowledge, modern technology, and a skilled labour force for establishing a semi-dependent mining sector,³³⁶ the Iranian state was the most appropriate agent for taking over the Sarcheshmeh Copper Mine in order to establish and lead the Iranian copper industry.

A Technocrat

The Shah and his consultants deliberated the future of the Sarcheshmeh Copper Mine, as it was predicted to have a significant impact on industrial development and the growth of the copper industry in Iran. He assiduously reviewed the track record of high-profile technocrats, consulting authorities with integrity to scrutinise worthy experts in his search for a managing director of the company. Reza Niazmand was selected, a well-informed technocrat with many achievements in founding state institutes and implementing effective industrial development programmes. Niazmand's reputation was not

335 Sa'ïd Leylaz, Interview by Author, May 18, 2016; Abbas Milani, *Eminent Persians: The Men and Women Who Made Modern Iran*, 671. Although Milani mentions the Shah's intention in controlling the strategic commodities, he does not recognise it as an economic strategy which was not uncommon in the world but sees it rather as very much the Shah's will.

336 By semi-dependent I mean that in the medium-term they would be dependent on technology and management. The company planned to train local experts and train a labour force to replace foreigners in the future. However, in the documentary film produced by the company, it was claimed all work in the Sarcheshmeh project was done by Iranian experts.

determined by his knowledge and expertise, but by his overwhelming commitment to his profession and to national interests.³³⁷

The Shah informed Niazmand via Houshang Ansari, the Minister of Economy, about the new position. However, Niazmand respectfully declined, stating that the chosen Chief Executive Officer was a notorious statesman who would undermine his authority. This response was unexpected. It prompted the Shah to send a message to the effect that he would prohibit the chief executive from interfering in company affairs, and that he would also instruct him not to enter the company's premises. But Niazmand's answer was again negative. After a few days, Houshang Ansari telephoned Niazmand and said: "As the Shah is very attentive to the Sarcheshmeh project, he is appointing you as the managing director and chief executive officer".³³⁸ That was an acknowledgement of Niazmand's standing with Shah.

Niazmand described the day of introduction in following words:

"The Shah was talking to me while keeping my hand: Why did you run away? I was surprised and replied, because of the Budget and Plan Organisation. When someone is appointed to run a project, and the Budget and Plan Organisation approves the feasibility study and the allocated budgets, then they have to disburse according to the approved plan. I sincerely request that you now place a strong command regarding the issue of running Sarcheshmeh. While the

337 A distinct man in the Shah's economic team who has recently been praised overwhelmingly for the crucial role he played in industrial development in 1960s and 1970s. Some titled him as the general of industrialisation in Iran.

338 Aliasghar Sa'idi, *Technocracy VA Syasatgozari-ye Eqtesadi dar Iran be Ravaiat-e Reza Niazmand* [Technocracy and Economic Policy Making in Iran: Reza Niazmand's Narrative] (Tehran: Loh-e Fekr, 1394 [2015]), 216.

Shah still kept my hand he scowled and commanded to the Prime Minister, Majid Majidi, head of Budget and Plan Organisation, and Houshang Ansari that the approved Sarcheshmeh credit must be disbursed on time”.³³⁹



Figure 5: The first three persons from right to left: Reza Niazmand, Alinaghi Alikhani, and Mohammad Yeganeh

Reza Niazmand's Profile

Reza Niazmand was one of the noteworthy technocrats during the Pahlavi era who originated from Reza Shah's educational development programme which expanded higher education and

³³⁹ Ibid, 216.

introduced a supportive scheme to send Iran students abroad to complete university degrees, which was partly targeted to produce professionals to lead Iran's developmental plans. The outcome was an enthusiastic body of experts, mostly graduates of top universities in Europe and North America, who participated in Iran's developmental plans.³⁴⁰ The state organisations absorbed these experts of merit, with the intention of shaping a body of leading technocrats who would contribute to the design and implementation of the social and economic strategies. They established several advanced economic institutions, including the Industrial Development & Renovation Organisation of Iran (IDRO), and ran numerous industrial projects and developmental plans.



Figure 6: Reza Niazmand

Reza Niazmand was born in Kermanshah in 1921 and graduated in Mining and Metal Melting from the Industrial College of Iran-

³⁴⁰ Mas'ud Nili and Mohsen Karimi, *Barnamehrizi dar Iran 1316-1356* [Planning in Iran 1937-1977] (Tehran: Nashr-e Ney, 1396), 48-49.

Germany in Tehran. After graduation, he worked in the Vanak factory in Tehran. Years later, he left for New York, to be educated in industrial management, but he could not complete his degree because he had to return home for family reasons. He then began working in the Budget and Plan Organisation. Thereafter, he was appointed as the managing director of Textile Corporation, and then Rey Cement Corporation. The private sector was rife with nepotism, with no knowledge of how to establish and manage industrial plants. Therefore, the state founded the Centre of Guidance of Industries and Niazmand was appointed as its first head. He later restructured the Centre and was acclaimed by the Industrial Management Organisation for promoting the training of modern industrial managers.

The state decided to merge the Ministry of Industry & Mining, Ministry of Commerce, and Customhouses into a Ministry of Economy and appointed Alinaqi Alikhani as its minister. Niazmand then served as industrial and mining deputy to Alikhani and played an important role in planning the strategy of Iran's industrial development, leading to a substantial industrial growth in the 1960s.

Industrialisation in the global south generally relies on imported technology from advanced countries. This inevitably renders the host dependent on the technology's owner, which creates a delicate situation during international crises, particularly for the host, since the technology can be used as a strategic means of pressure in the hands of industrial powers. Therefore, the industrial policymakers tried to determine a pathway of industrial development to lessen the strategic effects of technological dependency. This was a crucial issue during the political climate of the cold war, which led to the formation of a

binary international power bloc in the 1960s and 1970s. The cold war comprised three main specifics, namely bipolarity, containment, and aid-donor competition.³⁴¹ Following WWII and the shift in global power, the US ascended to be the predominant world power and the chief representative of capitalism. Socialism, too, with its apparent championing of the Soviet Union soon signalled the rise of bipolarity in world dynamics. The US thereupon sought to curb the spread of communism within the paradigm of modernisation, devising a surge in economic development in undeveloped countries. Thus, the US provided financial and technological aid to targeted countries to lead them towards “prosperity”. Subsequently, the close relationship between the Shah and the US, particularly in the aftermath of the 1953 coup, led to support from the US for developmental programmes in Iran. However, Iranian technocrats acted with caution to shield the country’s industrial progress from future frictions in international relationships, specifically in Iran's foreign relations with the West. As a result, the state strove to maintain a strategic balance by setting up industrial infrastructures based on importing the technology from both blocs. Despite the tight cooperation between Iran and the West, the Shah and his technocrats attempted to increase the level of economic exchange by importing technology from the Eastern bloc. Tehran, therefore, hosted the first Industrial and Trading Exhibition of the Soviet Union on 18 May 1965, to display the economic ties between Iran and the Soviet Union in the Cold War period.³⁴² The Shah then established an ambitious industrial project in

341 P.W. Preston, *Development Theory: An Introduction* (Oxford: Blackwell Publisher, 1996), 167.

342 *Majaleh-ye Burs* [Burs Magazine], *The Soviet Union’s Exhibition in Tehran*, no. 22, Khordad 1, 1344 [May 22, 1965], 2.

Isfahan, a steel industry, in cooperation with the Soviet Union.³⁴³ In his inaugural speech of March 1968, the Shah said explicitly that the West avoided giving Iran its knowledge and technology in the steel industry. He then fervently pronounced that nothing would stop Iran from development.³⁴⁴

Iran's economic turn towards the Eastern bloc was not determined by the Isfahan Aryameher Steel Company, but was prolonged over several mega-projects in heavy industries which were all instigated through a newly established organisation, the IDRO. IDRO was founded by Nizamand to develop industries which the private sector had insufficient capability to run. He designed a responsive organisation to hasten the rhythm of industrial progress, through keeping the IDRO away from cumbersome state bureaucracy. During his four-year appointment, Niazmand established four large-scale industrial plants, three in cooperation with countries from the Eastern bloc; Tabriz Machin Tools Manufacturing, with the help of the then Czechoslovakia, Tabriz Tractor Manufacturing aided by Romania, Arak Machin Tools Manufacturing with the assistance of the Soviet Union, and the Iran Aluminium Plant in partnership with an American

343 Some scholars state that the project was secretly agreed with the Soviet Union in order to prevent interference and disruption by others, specifically the United States. The West had no desire to equip Iran with industrial technology for steel-making. However, the evidence points the opposite way; in a letter from the British Embassy in Tehran to the British Foreign Office and the US embassy, he cautioned that Iran was planning to make an agreement with the Soviet Union to set up a steel mill. In response, the British Foreign Office declared that Britain no longer had any concerns in connection with the establishment of a steel mill by the Soviet Union. They said that if the project proved to be feasible, then HM State would support British companies to step in with counter-offers, but that according to British research the project would not be economically viable. Almost the same reaction was received from the US embassy. See; FO 371-170410, Letter from British Embassy in Tehran, September 28, 1963, The National Archives; See FO 371-170410, |A Letter from British Foreign Office, November 8, 1963, The National Archives.

344 According to one of the worker, the Shah stated that in his inaugural speech.

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company, Reynolds.³⁴⁵ In addition, he established two building construction companies in Tabriz and Arak to build two towns there for the companies' workers and staff.³⁴⁶

Niazmand was then called to develop the Sarcheshmeh Copper Mine which he equipped with imported technology from Western countries, mainly the US. His choice was implicitly linked with a political incident in Latin America: the rise of the socialist party in Chile in the 1960s and 1970s and nationalisation of the Chilean copper industry, leading to severance of control by the Anaconda Company, an American giant controlling Chilean copper. Basically, countries with huge copper reserves in the global south had been targeted by international companies, as they secured long-term control over copper deposits mainly in Africa, such as those in Zambia, and those in Chile in Latin America. In the world of copper industries, there were several leading countries, such as Chile, Mexico and Zambia, whose nationalisation of copper ore deposits became controversial.³⁴⁷ Chief among them, Chile has the most significant copper ore reserves in the world such as Chuquibambilla, El Salvador, and Potrerillos. Despite the fact that the Chilean economy was reliant on copper production, for decades the country had no control over its copper resources as they were mostly in the hands of American companies, predominantly Anaconda, one of the biggest copper mining

345 Taqi Tavakoli studied the projects in Arak and in Tabriz. He was also a member of Iran's negotiation team. Tavakoli was later appointed as the second managing director of Sarcheshmeh Copper Mine ahead of Niazmand. Taqi Tavakoli, "Sarcheshmeh ra Sakhtim ba Hashem-e Gholha" [We Constructed Sarcheshmeh with Hashem Gholha], *Mes Magazine*, no. 53, Dey 1392[January 2014], 49. The exploration and extraction of Zarand Coal Mines at Kerman province was among the large-scale mining projects which were established based on importing technology from Soviet Unions.

346 Aliasghar Sa'idi, *Technocracy va Syasatgozari-ye Eqtesadi dar Iran be Revaia-e Reza Niazmand* [Technocracy and Economic Policy Making in Iran: Reza Niazmand's Narrative] (Tehran: Loh-e Fekr, 1394 [2015]), 180.

347 David Humphreys, *The Remaking of the Mining Industry* (Berlin: Springer, 2015).

companies in the world. The election of Salvador Allende as the first socialist president of Chile in 1971 promoted nationalism and anti-imperialism discourse in the Chilean political arena. The first move was to be the release the Chilean economy from the domination of the American company. Therefore, Allende declared the nationalisation of copper in Chile and the state ultimately took control of the copper industry.³⁴⁸ This ended decades of Anaconda's domination of the Chilean copper industry, placing Anaconda in a serious financial crisis.³⁴⁹

As was mentioned, Niazmand took this opportunity to negotiate with Anaconda regarding the Sarcheshmeh Copper Mine. He immediately scheduled a trip to the US, with no prearranged appointment, for a meeting with the managing director of Anaconda. The first meeting was productive, coming to an initial agreement. That was a big step forward, as the Iran copper industry brokered Anaconda's cooperation, which arose from the persuasive scale of Sarcheshmeh, Anaconda's crises, Iran's political stability and promising future, and the proficiency of Niazmand and his team.³⁵⁰

Niazmand then returned to Iran and requested a legal team to provide a draft contract for a future meeting based on the initial agreement. However, he later reported that a set of experts from Anaconda were

348 The nationalisation of copper by Salvador Allende in Chile is comparable with what occurred in the nationalisation of Iranian oil by Iran's Prime Minister, Mosaddeq. They both rose up against the domination of superpowers on their mineral resources, Britain in Iran and the US in Chile, both were thrown up by a coup orchestrated by the US. However, the nationalisation of the copper industry in Iran was driven by strategic-economic factors, rather than struggling for independence and wrenching copper resources from the control of superpowers.

349 The US government came to support Anaconda by threatening to place hefty sanctions against Chile, but the threat did not change Allende's decision. A clash flared through the intervention of the US in supporting the Pinochet coup, Allende was overthrown in 1973, but Anaconda could never regain its previous high status in Chile.

350 Although Niazmand claimed that he only accidentally became aware of the nationalisation of copper in Chile and the turmoil within Anaconda, Iranian experts were undoubtedly aware of Anaconda's difficulties and had been intending to suggest Anaconda as a potential partner.

negotiating with the Ministry of Economy in Iran; and they had even reached an agreement regarding Sarcheshmeh Copper Mine. In fact, a group of statesmen had circumvented Niazmand in order to determine a deal with Anaconda based on their own interests. The news did not surprise Niazmand, since his long experience of working in the state had made him aware of corruption in the system. His further investigation revealed that both sides had agreed on a deal which significantly favoured Anaconda. Niazmand describes that as Turkmenchay-like, profoundly ignoring Iran's national interest.³⁵¹ He then stepped in and declared himself as the lawful representative of Sarcheshmeh Copper Mine, therefore any agreement without his presence, and any contract without his signature, would be unlawful.



Figure 7: The contract being signed between SCMCK and Anaconda

351 The Treaty of Turkmenchay was a one-sided agreement between Persia (Iran) and the Russian empire, signed on 10 February 1828, to conclude the war between Persia and Russia. Turkmenchay agreement is identified as a template for a one-sided agreement in Iran in common political assessment of their past.

Niazmand's negotiations with Anaconda went on a long time, which made the Shah concerned that Niazmand might not agree to a compromise, leading to stagnation of discussions.³⁵² However, they finally came to terms and Anaconda signed the contract as consultant of the Sarcheshmeh Copper project in 1972.³⁵³ Niazmand and his successor, Taqi Tavakili, were anxious to save the Iranian copper industry from what had happened to the oil industry, which for decades had been dominated by Britain (see chapter two). They intended to keep non-Iranian hands out of Iran's copper resources and maintain Iranian autonomy over its own copper industry. Therefore, Niazmand declared that no share of the Sarcheshmeh ore body could be released to the foreign companies, as the mine was entirely owned by the Iranian state. He then proposed that Anaconda join the consultancy services for the project. Niazmand also employed a well-known man in the world copper industry, Charles M. Brinkhoff, who was the ex-president and chief executive officer of Anaconda, as the consultant. Brinkhoff initially advised him to hire a group of engineers who worked for Anaconda at Chuquicamata mine in Chile to design the Sarcheshmeh Copper Mine.³⁵⁴ Niazmand then declared that the members of Anaconda's workforce who came to Sarcheshmeh would be Iranian state employees from their date of entry into Iran and would be treated under Iranian legislation. They would be temporarily hired, and the company would be permitted to

352 In his regular meeting with the 'Alam, once the Shah stated that "I have good news. The contract with Anaconda will be signed today." See Assadollah 'Alam, 'Alam's Memories Vol. 2, (Tehran: Mo'in, 1385), 334.

353 Alikhani also states that the first contract did not secure the Iranian interests. Niazmand overturned it and pushed Anaconda to agree to a new contract which preserved Iran national interests. See Assadollah 'Alam, 'Alam's Memories Vol. 2 (Tehran: Mo'in, 1385), 334.

354 National Academy of Engineering, Memorial Tributes: Vol 4 (Washington DC: The National Academy, 1991 Press), 33.

dismiss Anaconda's workers by giving a payment of three months' salary and a business class plane ticket home.³⁵⁵ Niazmand also hired the well-experienced Marketing Administration of Anaconda in London to promote the Iran copper industry on the London stock market and transferred some young Iranian employees to the UK to be trained for work in the London office. As a result, Niazmand's performance generally showed that his managerial decisions were in line with the national interest, rather than fulfilling the group interest, in establishing the Iranian copper industry.³⁵⁶

Another American company, Parsons-Jurden, joined the project as a contractor in the following year. As the SCMCK planned to build a company town close to the mine to house 12,000 people, the company also signed a contract with Abdol'aziz Farmanfarmaian and Associates (Consulting Engineers) in 1973 to design the town, which was named Sarcheshmeh Copper Town. The town was constructed at a distance of 5 km to the south-west of the mine in an area of 4 km². In 1975, Taqi Tavakoli succeeded Reza Niazmand as managing director, and the Shah made his first official visit to the project in early 1976. As Tavakoli affirms, the state decided to nationalise the whole copper industry in order to preserve it from what had happened to the Iranian oil industry in the past. With assistance from the legal department, Tavakoli prepared a single article for presentation to the parliament. It was passed by the parliament, and the Iran copper

355 Reza Niazmand, "Ekhrāj-e Avalin Amrikai az Mes-e Sarcheshmeh [The First American Who was Dismissed from the Sarcheshmeh Copper Mine]," *Asr-e Mes Magazine*, no. 55, Esfand 1392 [March 2013], 81; Aliasghar Sa'idi, *Technocracy and Syasatgozari-ye Eqtesadi dar Iran be Revaiat-e Reza Niazmand* [Technocracy and Economic Policy Making in Reza Niazmand's Narrative] (Tehran: Loh-e Fekr, 1394 [2015]), 217

356 Niazmand's performance will be examined in the next chapter.

industry was nationalised in 1976.³⁵⁷ In 1977 Mohammad Baqer KIA was appointed as the third managing director, but he never assumed office, for he died almost immediately after he was selected. Mehdi Zarghmee following Kia as the mine's fourth and, as it proved, last managing director during the Pahlavi period. After a total investment of approximately 1.4 billion US dollars, roughly 95 per cent of the project including housing construction, water supply, extraction, concentrator, and smelter had been completed by the time of the 1979 Revolution.³⁵⁸

Conclusion

This chapter discussed the development of the Iran copper industry within the developmental state framework: a concept which highlights the fundamental role of the state in economic growth and industrial development. The core of the argument is constructed upon the critical contribution of experts from state institutions, developmental strategy and political structure in economic expansion and industrial growth. It shows the development of the copper industry at Sarcheshmeh Copper Mine was built on components including the strategy of industrial development, industrial entrepreneurs, technocrats, agile institutes, state developmental view, the rise of oil income and political stability.

The Iranian industrial development programme prioritised the expansion of metal industries as the foundation of industrialisation, so

357 Taqi Tavakoli, "Sarcheshmeh ra Sakhtim ba Hashem-e Gholha [We Constructed Sarcheshmeh with Hashem Gholha]," *Mes Magazine*, no. 53, Dey 1392 [January 2014], 51.

358 Mehdi Zarghamee, Interviewed by Author, November 3, 2016; Ali Moazeni, "Chand Reva'iat-e Mo'tabar Darbareh-ye Mes" [Some Valid Narratives about Sarcheshmeh Copper Mine], *Ash-e Mes Magazine*, no. 70, Farvardin 1396 [April 2017], 122.

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that its national metal industries would have the capacity to supply domestic industrial manufacturers with raw materials rather than importing them from outside. This was a strategy that originated from the import-substitution programme to make Iran's industrial foundations less dependent on foreign countries. Therefore, the discovery of a mega copper deposit at Sarcheshmeh drove the state to establish an advanced copper industry in Iran.

Despite the contribution of the mining entrepreneurs, the Rezai brothers, in exploring the Sarcheshmeh Copper Mine, nationalisation of the mine was indicative that Iran's industrial development strategy was reliant on the state's input in leading, investing, and implementing heavy industries and strategic commodities, while the private sector was relegated to establishing mid- and small-sized industry.

The Shah's enthusiasm for industrial development, particularly his attention to the Sarcheshmeh Copper Mine yield, set the stage for technocrats to play a more inspiring role in the pathway of copper industry development. As a result, the first managing director, Reza Niazmand, who was a well-educated technocrat, made a significant contribution to the establishment of an advanced copper industry. The Shah also stipulated that the Budget and Plan Organisation must cooperate with Niazmand. Niazmand and his successor, Taqi Tavakoli, were anxious to preserve national interests in commitments with international companies, particularly since the Iranian oil industry had been controlled by Britain for many years. Therefore, in his position as managing director, Niazmand tried to prevent corruption, which was evident in his breaking of an initial agreement which had been

brokered with Anaconda by a corrupt group inside the state. Tavakoli also insisted on fulfilling national interests by pursuing the nationalisation of the Iranian copper industry. It needs to be said, that the stable political conditions in the 1960s up to mid-1970s, as well as access to a reliable source of high income, which was oil, provided the opportunity to expand the impact of the components and agents mentioned above, in the development of the copper industry in Iran.

