The London School of Economics and Political Science

Manufacturing Stability:

Everyday Politics of Work in an Industrial Steel Town in Helwan, Egypt

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Declaration

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Abstract

A few days before Hosni Mubarak was ousted in 2011, he reminded the Egyptian people that *'istiqrār* ('stability') was his legacy both domestically and internationally. Their choice was between 'stability' and 'chaos', he threatened. This thesis argues that stability is a mode of governmentality whose power cannot be fully appreciated at the level of political discourse only. Rather, stability as a practice of government is entangled with peoples' values, aspirations, and the intimate politics of everyday life. In Egypt between the Free Officers coup of 1952 and the January 25th revolution of 2011, 'stability' embodied access to both tenured employment and the means to reproduce the conditions of 'a good life' in the context of the family. Adequate understanding of stability and its ubiquity as an ideal must take into account the complex ways in which state projects and imaginative appropriation of those projects intersect. The thesis draws on fieldwork in an industrial neighbourhood of Cairo central to political movements of Egypt to analyse the everyday politics surrounding access to tenured employment in the context of the casualisation of labour and deregulation of capital since the inception of neo-liberal reforms in Egypt in 1991. By analysing the politics of labour at a site of strategic interest to the Egyptian regime from Abdul-Nasser to Mubarak, the thesis highlights how adequate understanding of political economy, practices of governing and neoliberalism must include both the shop floor and the home.

The material for this study is drawn from twenty-two months of ethnographic research on the shop-floors and in the homes of the company town of Egypt's oldest public-owned fully integrated steel plant, the Egyptian Iron and Steel Company (EISCO) in Helwan. I explore how the politics around tenured employment enabled the state to tighten its grip over what historically used to be a leading site of militant labour activism. I argue that the state capitalised on workers' valuation of relationality and reproduction, represented in their aspiration for *'istiqrār* ('stability'), by confining new temporary fixed-term employment to children and relatives of EISCO permanent workers. In the face of the increased precariousness of work and life conditions under neo-liberalism, permanent work contracts, I propose, acted as a potential property right that transformed a group of militant workers into a privileged group and set their interests against the rest of the working class outside the plant. The thesis shows how the constant innovation in property relations and the re-appropriation of the meaning of work in people's lives, by turning 'stability' from a social value into a productivist and calculative one, perpetuated the capitalist labour regime and values in workers' communities.

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Notes

For transliteration I have adopted the guidelines of the *International Journal of Middle East Studies (IJMES)*. To make sure I convey the meaning that my informants communicated, I used the original words said in Egyptian dialect rather than their classical Arabic root. The letter *jīm* (J) is therefore transliterated as *gīm (g)* and the letter *qāf (q)* as *hamza (ʾ).*

Except for public officials and public figures known widely to the community or the reader, informants' names have been anonymised to protect their privacy and ensure their security.

For currency exchange, one Great British Pound (GBP) is equivalent to 10.54 Egyptian Pounds (EGP).

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Introduction

In April 2012, almost one year into the revolution of January 25th 2011, I visited the Egyptian Iron and Steel Company (EISCO), where I had conducted the ethnographic fieldwork for this PhD thesis between November 2008 and August 2010. Sitting with workers in a room adjoined to the shop-floor of the Hot Steel Plate- and Sheet- Rolling Mill, we enthusiastically discussed the new political situation in Egypt as we sipped tea and shared oranges. Only a handful of my friends at EISCO had participated in the revolution in a personal capacity. EISCO as an institution, however, had remained a fortress of silence throughout the first eighteen days of uprisings and the following mobilisation over the next year. Labour activism had escalated throughout Egypt since 2006; an estimated two million workers had gone on strike between 2006 and 2009 (Bishara, 2012) and the strike wave was said to be the strongest and longest since WWII (Beinin & El-Hamalawy, 2007). The collective actions led the way to the destabilisation of the regime. Following Mubarak's ousting, workers across Egypt adopted more radical tactics, from kidnapping managers to occupying local governors' offices, from cutting off roads to lying on railway tracks in order to demand permanent employment, higher wages, better working conditions and, at times, to challenge the military council that was then ruling Egypt. Yet at EISCO none of that happened. EISCO did not catch the momentum of the strike wave prior to the toppling of Mubarak, and the only protest that did emerge during the revolution called on the military council to send troops to stop the theft of the machines by local armed groups taking advantage of the momentary collapse of the police. I was covertly hoping that with the revolution, EISCO would turn into the militant bastion it had once been, but I was disappointed.

My disillusionment was similar to that I first experienced upon starting fieldwork. Most of what was written about EISCO's recent history focused on the militant occupations that took place in 1989, which were ruthlessly responded to by state security personnel who stormed the plant, killed ʿabd al-Hay al-Sayed Hassan, a worker in the steel department, tortured the captured protest leaders, and detained hundreds of workers as well as members of the public, who stood in solidarity. I started my fieldwork naively imagining EISCO to be the militant site of labour activism I had read about, but soon realised that the events of 1989 remained only the object of leftist nostalgia. Since that time, very few collective actions had taken place at EISCO. The plant had turned from a once-leading site of labour activism in Egypt to a conservative camp. In a context where protests had taken place in the plant in the past, and were now proliferating throughout Egypt under Mubarak and later in a

revolutionary context, I found myself wondering why some workers joined collective actions while others did not. This thesis, then, traces the social history of EISCO in an attempt to explain the radical changes in the character of the plant since the major strikes of 1989 and the onset of neo-liberal reforms in Egypt in 1991. It shows how the neo-liberal reforms introduced under Mubarak overlapped with other governing practices of the state, which together enabled some workers to access state resources and enjoy a good life and dispossessed many others who could not set foot in the plant nor secure the same long-term benefits. The emerging class differences among workers are thus the object of this thesis. The case of EISCO illustrates how the state, contrary to the prevailing assumptions of its withdrawal in the face of market forces, actively contributed to silencing a large group of what was once a militant labour force, and gave the class struggle a new course. In the following pages I explain how managers at this state enterprise manipulated the meaning and value that workers allocated to work and stability in a way that turned permanent work contracts into a potential form of property right and a new claim for class exclusions.

I. The Context

EISCO is Egypt's oldest fully integrated public sector steel plant.[1] It is located in al-Tibbin a southern district of Cairo, to the south of Helwan, a city which Nasser turned into an industrial hub in the 1950's. Having reached 25,527 workers in 1982, EISCO's labour force was gradually reduced to 13, 225 by the end of 2009, which still makes it one of the largest factories in Egypt. [2] EISCO bears resemblance to many landmarks steel plants such as Stalin's Magnitogorsk, Nehru's Bihlai and Suharto's Krakatau, which embody the nationalist ideals of modernisation and self-determination of their times. The mere space it occupies is gigantic. It is built on 4,000 *feddan* (4152 acres)of land, in addition to a whole company town- called *madīnat al-Ṣulb* ('the steel town') - constructed around it to accommodate around 3000 households of EISCO workers. Up to three generations of EISCO employees, who came from governorates all over Egypt, turned al-Tibbin into their new home. The company town includes hospitals, schools, sporting clubs, an industrial technical college, and a range of facilities that enabled EISCO families to sustain a new life away from their original hometowns and extended families.

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[1] The plant is also commonly known as *Hadisolb* on the market. The name I have used in this thesis, EISCO, refers to the official name, which is translated from the original Arabic *Sharikat al-Ḥadīd w al-Ṣulb al-Miṣriyya.*

[2] See Figures 1-4 in Appendix for maps and photos of Helwan and of EISCO.

To build EISCO and its company town, the state confiscated the agriculture land of the historical residents of al-Tibbin, *al-tabābna*. The latter continue to refer to themselves as ʾaṣḥāb al-ʾarḍ ('the owners of the land'). With the land grab, *al-tabābna* were driven out of their land to the margins of the company town in informal housing, generically referred to *as bīyūt ʾahālī* ('family-built houses'). Some large families received compensations for the confiscation of their land, often at below market rates, but the majority were left dispossessed. *Al-tabābna* thus faced a similar fate as that of al-Nuba residents, who were dispossessed by Egypt's national mega project, the High Dam in Aswan; although the first's plight received significantly less public attention in the historical narratives. To add insult to injury, *al-tabābna* have continuously been viewed unfavourably by EISCO residents of the company town, who treat them with condescension. This is evident in the way EISCO households refer to the first as "rubbish" or "*sūqqiyīn*" ('people of the market') or "thieves" to distinguish themselves from them. Although EISCO workers are meant to be part of the 'working class', they do not see themselves as part of that same class that *al-tabābna* belong to. How the two groups interact with one another and include and exclude others is a central query in this thesis.

Agriculture land played another important role in the social history of EISCO.[3] The vast agriculture areas around the plant facilitated the recruitment of a large group of workers from the villages and semi-rural areas around. Workers came from various districts such as al-Badrashin and al-ʿayat, al-Wasta and al Fishn districts on the west bank of the Nile and al-Saff and ʾatfih districts in the south of EISCO.[4] Most of the workers who were born and bred in these regions continue to live in them today, making a significant portion of the labour force simultaneously embodying the subjectivities of both workers and peasants. The importance of the ties of *Baladiyyāt* ('ties between people who originate from the same home village or town') to the sociality of workers from these areas, adds to the sense of intimacy and familiarity among EISCO employees. Nomads, generically known as ʿarāb ('Arabs'), who have settled in villages adjacent to the mountains that surround EISCO also took employment in the plant. EISCO thus became a 'melting pot' that brought together people from all walks of life in Egypt. The original sin behind its inception however, which dispossessed

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[3] See Figure 5 in Appendix for an indication of the agriculture areas around EISCO.

[4] It is worth noting that these districts are very large in population size and play an important role in the politics of localism that transpire at EISCO. al ʿayat alone, for example, is home to 39 villages. According to the 2006 household census of Egypt, al-Badrashin is home to 63,836 residents and al ʿayat is home to 34,586 residents. To the south of EISCO, Al-Saff is home to 45,131 inhabitants and al-Wasta is home to 37,916 residents, while data for ʾatfih is unavailable. Helwan alone, separate from the above, is home to more than half a million residents- amounting exactly to 643,327.

generations of original inhabitants from their land before a single proletarian had even set foot in the plant, was perpetually silenced. The continuous ecological disaster in the nearby agriculture areas, which suffered from the pollution and industrial waste of EISCO was also never highlighted as part of the ecological debt which EISCO's 'success story' owes to other communities. It is this history of EISCO, told from the viewpoint both the main industrial complex and its fringes, that I then attempt to relate in the following chapters.

Let me however first start here by a brief historical overview of this industrial mega project. EISCO's main industrial complex in al-Tibbin connects to the plant's own railway, transporting the iron ore from the mines located in the Western desert in al-Wahat. With a massive industrial site and production units stretching across Egypt, EISCO's topography reflects its place in the national imagination. At the time of its inception, steel production was seen as indispensable to national self-determination and modernisation, which gave EISCO its symbolic and historical fortitude. Some even went as far as calling it "Helwan's High Dam" in reference to the Aswan High Dam, the landmark national project, which was built during the same period despite the Western forces and their reluctance to finance it. EISCO was uncontestably considered Egypt's pride and a symbol of its post-colonial power.

In his inauguration speech at the plant in 1958, President Gamal Abdul Nasser called EISCO "Egypt's-dream come-true" (Nasser, 1958). The plant, according to him, was to liberate Egypt from years of dependence on foreign countries for the supply of steel. Former rulers, he said, had repeatedly promised the Egyptian people such vital project but failed to realise it because of their colonial alliances. EISCO thus became the symbol of a strong post-colonial state. This symbolic status reflected in EISCO's political importance to successive regimes that followed Nasser's. Even during Mubrak's time, when liberalisation was peaking and aggressive capitalist policies destroyed national industries, EISCO continued to be a 'strategic' industry to the regime, which vetoed its privatisation and only restructured parts of it.

Following the 1952 Coup, Nasser envisioned Helwan as an industrial hub. In a matter of years, the formerly largely agricultural area became home to various industrial projects ranging from steel, coke, cement, car manufacturing, ammunition and military aircraft to lighter industries, such as spinning and weaving and the manufacture of telephone equipment. The slogan of Egypt's first five year plan (1960-1965) "from the needle to the rocket" (Waterbury, 1983 p. 81), alluding to the scope

of industrial activities in which Egypt would be self-sufficient, was becoming a reality in Helwan. EISCO itself was established in 1954 with West German technological assistance from the company Demag which is famous for setting up steel plants across the global south. It was Egypt's first fully integrated state-owned steel plant, which mines the iron ore, transforms it into steel and produces a wide range of semi-final and final products such as plates, sheets, sections, billets and coils that cover a wide range of market demands.[5] EISCO first planned to produce 300,000 tonnes of ingots every year, which would enable the country to substitute all its then current steel imports (Waterbury, 1983). Almost ten years after its inauguration, a deal was signed with the USSR in 1967 to expand EISCO's production, whose total capacity has now reached 1.2 million tonnes of ingots a year. That Egypt's 'socialist' era was mostly set up by West German assistance speaks to the many transitions in the Nasserist project and its recourse to a socialist alternative only when attempts to attract funds from the West had failed and the 1956 tripartite aggression changed the geopolitics of the region. The historical biases of Nasser's nationalist policies are thus inscribed on EISCO's structures.

EISCO was established when ideas around economic planning were being radically shaped and the public sector was emerging as an important player in Egypt's post-colonial agenda. The creation of the National Production Council and the separation of the Ministries of Industry and Commerce following the seizure of power by Nasser and his colleagues, marked Egypt's intention to expand the state's economic role (Tignor, 1998). ʿAziz Sidqi, Egypt's first minister of industry and the chief architect of the public sector made industrial progress a priority across the government. He used his ministry, which was set up in 1956, to give the public sector a new centre of gravity. Educated in the United States of America, he earned a Ph.D. in regional economic planning from Harvard University in 1951 with a thesis titled "Industrialization of Egypt: The Case Study of Iron and Steel" (Tignor, 1998). Sidqi was eager to put in practice the work on his thesis were he proclaimed the benefits of state planning.

The private sector continued to be an important player until 1961. Between 1957-1959 while drawing Egypt's first five year plan of 1960-1965, it was estimated that "private interests were to be responsible for 64% of industrial investment and in the first year of the plan alone the private sector was to procure 70% of all domestic investments" (Waterbury, 1983 p. 72). This exemplifies the trust in the private sector as a major contributor to Egypt's industrial modernity. It included reliance on

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[5] This was a clear divergence from the predominance of scrap metal, often imported, in the production of steel by private enterprises prior to the inception of EISCO.

western private finance, at least until 1956. In 1957 when the technocrats in government, mostly educated in commerce and planning from western universities, were developing Egypt's first five year plan, Egypt was simultaneously increasing its political and military alliance with the Soviet Union, accepting large loans for the development of its projects and sending economic experts to the Soviet Union for advice about the first five year plan (Tignor, 1998). Although rapprochement with the Soviet Union did not lead to establishment of socialism then, it did however reinforce the discourse on the centrality of state planning. This was, as Mohamed Hassanein Heikal, prominent journalist and a close Nasser aide, said an "Egyptian brand of socialism" which relies on economic progress, rigorous planning, state ownership of the vital sectors (Tignor, 1998 p. 171). Public enterprises like EISCO thus represented the exercise of 'rationality' and the ability of the state to govern the economy.

It was after Britain and the U.S. withdrew the credit they offered to the Egyptian government to finance the construction of the High Dam that the public sector in Egypt was significantly enlarged, especially following the socialist decrees starting in 1961.[6] The politics that ensued highlight the different roles the state assumed with regards to the public sector and the importance of geopolitical changes to asserting the state's control over the economy. In July 1956, Nasser responded to Washington and London's decision by nationalising the Suez Canal, which was in turn followed by the tripartite aggression on Egypt later this year. Nasser retaliated by Egyptianising all commercial banks, insurance companies and commercial agencies for foreign trade. French and British banks and assets were put under the control of the Economic Organization (EO) *Al-Mu'assasa al-ʾIqtiṣādiyya*, a public holding company established in 1957 and a major player in the organisation of the public sector (Waterbury, 1983). The EO included the British and French companies sequestrated after 1956 and took administrative responsibility for all the state-run enterprises including the newly created Iron and Steel Company and other mixed enterprises where the public share was 25% or more. By 1960 The EO "controlled sixty four companies (including five banks and six insurance companies) employing 80,000 and assets worth 80 million EGP" (Abdel-Malek, 1968 p.111). Less than a year later, in 1958 the ministry of Industry was given the responsibility to license the establishment of all new industrial plants, private and public, as well as any expansion, change of location or change of purpose of enterprises already established (Waterbury, 1983). In 1960 the public sector was expanded further when the Misr Bank and Central Bank were nationalised. Misr Bank acted as the holding company for

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[6] The refusal to finance the High Dam was primarily in response to Nasser challenging the Western arms embargo on Arab nations in a state of war with Israel. Nasser contracted with Czechoslovakia for the delivery of Soviet weaponry and aircraft (Waterbury, 1983). The break of the embargo came after Israeli attacks on Egyptian soldiers in Gaza in 1955.

twenty seven industrial and commercial enterprises, including the largest textile centre in the Middle East, the Mahalla al-Kubra, and its various affiliates accounted for 60% of textile production (Waterbury, 1983). Three public holding companies, The EO, Misr Group and the then nascent Nasr Group (with forty eight companies) were to manage diverse products that would compete against one another and guarantee efficient management of the three holding companies by means of competition. Although the state was expanding its control over the public sector, it was still committed to a capitalist logic of competition and market profitability.

A somewhat divergent path emerged in 1961 with the socialist decrees (primarily Law 117, 118 and 119) that enabled mass nationalisations of assets, put a significant chunk of the non-agriculture sector under public ownership and changed the logic of governing the economy.[7] The socialist decrees marked Nasser's attempt to depart from the logic of state capitalism adopted till then and to introduce 'true socialism'. Competition between companies under the three holding companies was thus deemed incompatible with the new laws and in December of 1961 the three existing organisations were dismantled and replaced by a new organisation, The Supreme Council for Public Organisations, which included thirty nine General Organisations grouping 438 companies organised along sectoral lines (Waterbury, 1983). Centralised planning rather than market competition was the new governing ethos of the companies. The Ministry of Industry alone had eight general organisations and Sidqi fiercely asserted his ministry's right to determine basic strategy of industrialisation and the path of development in general (Waterbury, 1983). By 1965 the public sector had been expanded to its greatest size in Egyptian history. It accounted for 40% of output, 45% of domestic saving and 90% of gross national formation (Waterbury, 1983). The socialist laws "left the power of the state virtually unchallenged" (Tignor, 1998 p. 163). Nasser's regime announced that it would achieve "popular control of economic institutions" by way of public sector control (Tignor, 1998). However, Egypt's socialist era was not intentionally socialist nor ideologically driven. The recourse to socialist ideology only took place after the West withdrew the funds it initially offered and after Nasser deemed private capital to represent a threat to the stability of his regime (Waterbury, 1983).

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[7] There are different interpretations as to why nationalisation policies were implemented. One argument suggested that the private sector failed to meet its national obligation to invest as the plan period began, thus violating restrictions imposed on profits distribution that required that 5% of profits be invested into state bonds. Sidqi was probably also happy to enlarge his industrial empire. Others argue that Nasser felt the need to pre-empt the potential monopoly that some sections of the private sector presented, and its challenge to his stability. In this sense the pertinent decisions were not related to economics, but a political strategy of Nasser's to ensure his hegemony (Mabro , 1974 p.128) and to diminish any rivalry. This last view was later confirmed by Heikal who suggested that the nationalisation and sequestration was driven ahead by Nasser alone, with limited consultation - partly out of distrust out of the bourgeoisie.

In addition, the socialist laws in force since 1961 did not have time to develop and the period that followed was considered an "arrested transition to socialism" (Mabro and Radwan, 1976 p. 240). The persistent antimonopoly position of the Free Officers (Vitalis, 1995 p. 215–217) was met by the imperative of development. It followed that "if capitalists would not invest to grow the national economy, then the state would expropriate their resources and do it for them" (Elyachar, 2012 p. 82). These were the views that shaped the making of the public sector in Egypt. But the extent to which they managed to bring about socialism is debated, primarily because of Egypt's continued integration in international markets and politics, its reliance on external capital and significant production and political crises. Even before 1967 Arab Israeli war, which drained the resources of the state towards the war, by 1962 Egypt was facing a balance of payment crisis caused primarily by a drop in reserves from exports which struggled over the years to compensate for the successful Import Substitution Industrialisation (ISI) policies.[8] Some like Waterbury (1983) hold a more conservative opinion that labour productivity's drop with the overstaffing of the public sector, which was assumed at 20%, contributed to this imbalance. Drains on foreign reserves from payments to Britain for property nationalised in 1956, compensation paid to shareholders in the Suez Canal Company , and payments to the Sudan to cover the costs of resettling Nubians who were to be displaced by the High Dam also added to Egypt's international foreign exchange commitments (Waterbury, 1983). Hegemonic accounting standards of maintaining a balance of payments' balance and avoiding major deficits being a priority by put significant pressure on Egypt. In 1962 it reached a standby agreement with the IMF and drew credits of 20 million EGP requiring the devaluation of the pound as a conditionality, which coupled with a balance of trade deficit, fuelled Egypt's inflation hike and put the country in a murky financial position that was a subject to later financial and political attacks, especially following the 1967 War. Egypt's integration in the world economy and continued reliance on Western hegemonic accounting systems thus brought a new era where the state as a 'rational planner' and a controller of the economy was attacked. New alliances between the state and capital enabled the state to continue its control over the economy. These shifting practices of the state were experienced and articulated in everyday politics at EISCO.

a. **A People's History of EISCO**

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[8] A large portion of foreign exchange from exports dropped significantly with the worm infestation of cotton harvest in 1961 which affected 40% of the harvest (Waterbury, 1983).

Like most contemporaneous public plants, EISCO offered its employees permanent contracts for life, in addition to perks and benefits that guaranteed them a good life. These included annual raises, a pension fund, union representation, subsidised housing, free health care, transportation to and from the plant, a recreational and sports club, subsidised annual summer holidays, interest-free loans in times of need, a cooperative that sold consumer goods in instalments, and a monthly food allowance. This Fordist inspired employment system maintained the stability of the workforce by incorporating workers' social and domestic lives within the plant's circle (Burawoy, 1979; Harvey, 1989; Parry, 2001). The life stability and many opportunities for upward social mobility that these arrangements offered earned the public sector widespread appeal among Egyptians. Having started with an original labour force of 4,500 employees in 1960, EISCO's labour force thus grew rapidly to 21,372 in 1974 and to 25,062 in 1990, right before the neo-liberal reforms in 1991.

The life and family histories of the different generations of EISCO workers show the changes in the prospects of social mobility that came with working at EISCO over the years. The first generation of workers was the most upwardly mobile. The plant's recruitment criteria were quite lax in its early days. Many workers had little or no formal education, and a few remember being offered jobs the following day after they applied for work. Many who started work in the plant were thus originally of modest background but soon experienced a rise in social status and improvement in material circumstances.

With more technological advances, and especially after the inauguration of new mills with Soviet expertise in the early 1970s, work became less demanding and more attractive to a wider pool of people. The gains that the first generation had visibly made, from housing to social perks, attracted others. In 1973 alone 6,000 new workers were recruited at EISCO. The plant's industrial technical college, which students could join at age 16, was now graduating larger groups directly into EISCO jobs. In sharp contrast to conditions in today's labour market, upon enrolment in the technical schools, students at the time signed a pledge that they would work at EISCO for at least five years after graduation. Land-owning families in the 1970s sent their children to technical schools to secure work at EISCO, and the social taboo around industrial work became more relaxed. Although members of the second generation of workers were less mobile than the first, partly because they were originally of richer backgrounds and because their numbers were greater, they still benefited from the improvement in life conditions afforded by the plant's opportunities.

In time, permanent workers at EISCO acquired a status in their communities and had higher expectations about the sort of lives they should lead. ʿamm ʿUmar, a production worker said that when buying clothes in Helwan, he never tells the salesperson he works at EISCO; otherwise they would triple the price. Responding to my surveys in the plant, many replied to the question, "What is the most important benefit you gained from working at EISCO?" with *"kul hāga"* ('everything') and workers often described the plant with generous terms such as *al-sharika dih ʾummi ʿatāʾhā gheir mutanāhī* ('this company is my mother, it gives endlessly'), or "I did not own land, but this job is my piece of land" or "I am retiring from the plant as a *bey*".[9] Their reflections explain how the stability of their work allowed them to plan for the future and to make their aspirations for upward social mobility concrete, whether through offering their children the opportunity of higher education or through stable jobs in the plant, building family houses for their nuclear families, marrying their children into well-off families, or buying land. Hajj Medhat, a retired worker, summarised the life conditions of many workers in a somewhat intense way when he said: "we were nothing when we came to the plant, now we have become something, a big thing". Those who joined the plant later as temporary workers starting from 2007 lived a different reality conditioned by the devaluation of EISCO's market status since the 1980's.

b. Withstanding Neo-liberalism?

By the mid-1980s EISCO began to feel the effects of Sadat's *infitah* ('open door') liberalisation policies, in effect since the 1970s and continued by Mubarak. Trade liberalisation, the proliferation of the private sector and the state's withdrawal from the centralised allocation of jobs affected working conditions. The liberalisation policies exacerbated EISCO's financial position and the losses it struggled with since its inception.[10] The ratification of the Public Enterprises Law (Law 203 of 1991) marked the start of the IMF's Economic Reform and Structural Adjustment Program (ERSAP) in Egypt and its neo-liberal era in 1991. ERASP brought EISCO's severe downturn by significantly weakening its financial position and transposing its losses directly to workers. The 1991 Public Enterprise amendments

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[9] A *bey* was originally an Ottoman court title, but is used generically in Egypt today to reflect somebody of high status.

[10] Demag, the company that helped to set up the plant, was accused of faulty installation, of selling Egypt second-rate furnaces and installing them poorly. This made coke consumption high and the oxygen conversion process obsolete by the time of EISCO's inauguration (Waterbury, 1983). The plant thus never reached its potential production capacity since its inception. Liberalisation policies exacerbated EISCO's original accumulated debts from the underutilisation of capacity, excessive rates of coke and ore consumption, and what some called "a high share of labour costs relative to the labour value of output" (Waterbury, 1993, p. 104).

facilitated the restructuring of plants owned by the state with the aim of running them according to 'market rules' and preparing them for privatisation (Posusney, 1997). Public enterprises were rearranged by sector into 27 holding companies to separate ownership from management. Although the government initially promised that loss making enterprises were to be sold, in reality it was its profitable ones that went first. In fact in 1989–90, on the eve of the reforms, 260 out of 314 nonfinancial state-owned enterprises were profitable and only 54 were suffering losses(Mitchell, 2002). EISCO was never privatised, but the legal changes opened the way for more corruption in the plant.[11] Later other neo-liberal policies regarding trade, financial markets and labour increased the plant's accumulated debts.[12]

A second and more technologically advanced integrated steel plant was established in 1982; the Japanese-built Ezz El Dekheila (EZD). Later sold to the ruling National Democratic Party's oligarch, Ahmed Ezz, EZD established a monopoly on steel rebars, which constitute an average of 80% of steel sales in Egypt (Selim, 2006). The fierce competition primarily from EZD and the reduced state investment on machinery with the public-sector cuts imposed by ERSAP undermined EISCO's position in the market.[13] In 2009, EISCO's steel rebars producing mill was thus closed down and most of the sales in the plant came from other steel products. Around 50% of EISCO's sales were for example generated from one mill- the steel coil rolling mill. The hike in energy prices, which came with ERSAP, also reduced the competitiveness of EISCO's steel products, which already struggled under the liberalisation of imports and the competition from smaller private sector steel mills that slowly spread across the country (Abdel Khalek, 2005). Yet, despite this bleak scenario, the protection EISCO received as a public entity, and especially one that is strategic to the regime's legacy as a continuation of Nasser's Revolution, enabled it to survive on continuous access to bank overdrafts whose value

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[11] By 1998 it was hard to see EISCO as surplus generating enterprise. Unsold stocks reached 20% of annual plant production, up from 3.7% in 1988. As in many other enterprises, management devised the tactic of selling products to customers on credit to remedy the unsold stocks problem. This practice opened the way for more corruption as it coincided with the deregulation of capital markets, which saw many businessmen borrowing from banks with little to no collateral, not repaying their debts and fleeing the country leaving those who commissioned these deals and the workers whose lives depend on the plant to bear the costs. These practices at EISCO, for example, culminated in the CEO, in charge from 1991 to 2005, being sentenced for 14 years in prison on corruption charges.

[12] Abdel Khalek (2005) identified that the interest rate liberalisation stipulated by ERSAP, without a prior debt restructuring for public plants, multiplied the total value of EISCO's debts and its debt servicing costs. These were found to reach 5 billion Egyptian pounds by 2005 (approx. 500 million GBP) and cost an annual 463 million Egyptian pounds (approx. 46.3 million GBP) in debt servicing (Gamal, 2005).

[13] ERSAP stipulated that public sector spending as a percentage of GDP be reduced from 17% to 7.8% and be focused on three major sectors: a) infrastructure b) sectors with high social yields such education, health and research and c) areas that are unattractive for the private sector like poverty elimination (Abdel Khalek, 2005).

increased fivefold during the 1990s to reach a staggering 239% of the plant's capital by 1997 (Abdel Khalek, 2005).

EISCO remained protected from aggressive capitalist policies that ensued in other public enterprises. A system of early retirement, for example, was legalised in Egypt in 1993 and introduced at EISCO in 2001 to cut down the labour force. Although a total 4,090 workers opted for retirement packages by 2009 and gave up work early , the program soon became unpopular. 3,200 of the early retirements took place in the first year of 2001 but only 890 over the following 8 years (i.e. around 110 per year). When workers still on the payroll saw the first batch of retired workers struggling to make a living outside the plant and the state's promises of re-training workers upon retirement evaporate, many decided to keep their jobs. Unlike other plants however, where early retirement continues to be forced upon workers, after 2001 management exerted little pressure on workers at EISCO to retire. The political importance of EISCO meant that making it a profitable enterprise was not always the regime's priority and it decided to sustain it even when labour ratio was not considered "optimum for market profitability" (Waterbury, 1983). It is in these details that one sees the variations and dislocations of the neo-liberal agenda in Egypt and how the different logics of the state co-exist.

But EISCO was not totally shielded from ruthless neo-liberal policies. Like most other public enterprises, the steel plant was subject to a halt in new employment since 1991. The labour force was thus naturally slimmed down over time. To offset recent labour shortages brought about by this natural slimming down and the early retirement of workers, management began recruiting workers on fixed-term temporary contracts and daily wages. This became part of an on-going global strategy to make employment relations flexible and subject to market rules. The drastic change in economic policies could easily be seen in the variations in size and composition of the labour force at EISCO. In aggregate, employee numbers were cut in half between 1990 (25,062) and 2009 (13,225). Of the latter, 2,246 (17%) were newly employed on temporary, 6-12 month fixed-term contracts, and 10,979 (83%) were permanent employees. Female employees had dropped from 310 in 2000 to 110 in 2009, of which only three were on temporary contracts, reflecting the sexism ingrained in the new conditions of work . Temporary work was introduced at EISCO in 2007 after a 16 year hiring freeze and four years following the legalisation of temporary work under the new Labour Law 12 of 2003, which was debated in parliament for almost a decade before being ratified. A ministerial decree annexed to the new law stipulated that temporary workers would obtain permanent work following three consecutive years of work in the same workplace. This fuelled demand for temporary jobs at EISCO

amidst hope of securing permanent contracts. Those who did not secure temporary employment joined the plant as daily waged workers in the hope of climbing up the labour hierarchy, from daily, to temporary and eventually permanent positions. Accessing secure employment was increasingly difficult with unemployment rates estimated at 30% and especially high among university graduates.[14] A new labour politics was initiated in the quest for stability. Permanent labourers with secure 'indefinite' employment, temporary labourers with fixed-term contracts, and casual and daily labourers are all now part of the new labour hierarchy at EISCO and work together side by side on the shop-floors. The rest of this study explains how these politics of labour play out in reproducing perpetual domination under the capitalist labour regime.

c. The Terror of Possibilities

One would expect however, that its murky financial position and the gradual introduction of repressive labour policies would deter new workers from wanting to work at EISCO and lead older ones to protest their deteriorating conditions. But the plant's historical trajectory shows the nuance in the capitalist project that is intertwined with the interests of an authoritarian state and its utter terror from the possibilities that the labour movement can create. As mentioned earlier, in 1989, EISCO was home to some of the largest industrial protests in Egypt's history, when workers stood against the corrupt union which agreed to increase incentive pay for managers and white collars and not blue collars. This lead to a major uprising and two plant occupations with the police storming the plant in the second and detaining people for the following weeks.

1989 risked destabilising the regime. As a senior plant official explained to me during my doctoral fieldwork, the management vowed that such a situation would never again occur in Helwan. Given the sheer size of EISCO and its location among many other plants in Helwan, he said, management feared that "if EISCO rises, everything else rises". To the state, EISCO was not just an enterprise that is meant to generate surplus; it was also one which, though once a centre of fierce opposition, had since been tamed and policed for over twenty years and was now a potential means of exerting political control and generating broad electoral support for the ruling National Democratic Party. The Chief Executive Officer (CEO) of EISCO, for example, was required by state security

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[14] Although the official unemployment rate was 9.9% in 2003, yet Al Naggar (2010) reveals how disguising real numbers through accounting techniques hid the more accurate figure reaching up to 30%. He estimates unemployment of university graduates to constitute 93% of total unemployment figures.

intelligence to be a member of Mubarak's NDP and once in office, to hold the position of the head of the party's branch in al-Tibbin. Inspired by the same political calculations, during my doctoral fieldwork, the Minister of Industry visited the plant and out of the blue ordered an extra fifteen days' bonus pay to all. The gossip in the plant considered that this was because of upcoming parliamentary elections in late 2010. Hence, while the neo-liberal doctrine brought a stagnation of salaries and erosion of benefits in most public enterprises in Egypt (Mitchell, 2002), nominal wages at EISCO rose almost tenfold between 1990 and 2009 and by 2009 yearly bonus pay for each worker had reached 14 months worth of basic monthly wage.

The symbolic importance of EISCO to Egypt's nationalist history and the level of skill of its permanent workers, who can be considered akin to artisans at work, also contributed to EISCO's differential position in recent labour history. The comparative advantage of the steel industry over other vulnerable ones in the world market also consolidated the status of EISCO. EISCO's historical trajectory thus reflects the complexities, and at times contradictions and dislocations, at the heart of the Egyptian state project. In the following chapters I map out the multi-layered and contradictory practices and representations of the state from everyday encounters with it at EISCO.

II. Value, Class, Property and the State

a. The Politics of ʾIstiqrār and the Anthropology of Value

The everyday politics surrounding access to tenured employment at EISCO prompted my interest in how work acquires value in people's lives and how people's multiple subjectivities contribute to the spatio-temporal manifestations of class politics. Such interest in working out the 'meaning of work' emerged out of an awareness that capitalism secures competitive advantage through constant innovation, not only by changing the means of production, as Marx famously pointed out, but also by changing how meaning is produced (Foster, 2008). My interests coincided with writing the thesis while participating in the revolution of January 25th 2011. The heightened political consciousness in Egypt at the time made me mindful of prevalent discourses, particularly the wide-spread discourse about ʾIstiqrār ('Stability') in Egypt. The discourse about ʾIstiqrār was pervasive under Mubarak and became tied during the revolution to a clear counter-revolutionary productivist state and capital imperative about the importance of ʿAwdat ʿAgalit al-ʾIntāg ("the return of the production wheel") and the threat the revolution posed to ʾIstiqrār. Meanwhile, the different entries

in my field notes, highlighted how often my informants spoke about *ʾIstiqrār* and the importance they accorded to it as a social value and a way they gave social meaning to their work. *ʾIstiqrār* as a discursive tool and an everyday political practice tied well different political, organisational and social worlds.

Workers across the labour hierarchy at EISCO describe the object of their work as *ʾistqrār*. Permanent workers with life-time contracts have earned *ʾistqrār*, while temporary and daily workers hope that in a few years they will eventually also acquire permanent contracts that will bring it. But what does achieving *ʾistqrār* mean in everyday practice? and how is it related to the broader ways in which work is valued and people earn respect in their communities? I suggest that *ʾistqrār* as a social value enables workers to expand on their relations in the community, whether by marrying and reproducing, and thus expanding the family's sense of a good life, or by earning the respect of others for fulfilling their obligations to the community. In a sense, *ʾistqrār* is one way to express the value of 'relationality' that Elyachar (2005) finds essential amongst popular classes and to workshop masters in particular, whereby expanding on relations in the community is a much appreciated value. I treat *ʾistqrār as* a value by which workers represent the importance of their actions to themselves and look at how permanent work contracts become the symbolic medium, or "tokens of value", by which this quality of *ʾistqrār* is expressed (Graeber, 2001).

I also explore how EISCO capitalises on workers' valuation of *ʾistqrār*. By turning a social value into a productivist one and making people's immaterial labour into a resource that is part of calculations regulating labour regimes, EISCO re-translates the meaning of work as a governing technology. This facilitates the control of the labour force and during the company's good times, surplus extraction. Looking at these politics clarifies how the current permanent workforce is divided into those who are able to live by such value – by securing temporary work contracts at EISCO for their children, or at least daily waged work, which they hope to turn into permanent work in the future – and those who are not. The conflict between the capitalist state and labour is thus turned into a conflict between an aristocracy of labour working at EISCO, who are competing to bequeath permanent contracts to their children, relatives and *baladiyyāt*, and the reserve army of casual workers outside the plant, who cannot access employment in the plant on any basis.

What I have called in this thesis 'the politics of *ʾistiqrār*', as in the contestation over how people ought to live their lives, ties well the everyday politics from below to the wider overarching

politics of governing regimes. As the revolution of January 2011 revelled, it was difficult to miss how this everyday politics around access to tenured jobs was related to the on-going reference to Mubarak's ʾistiqrār. ʾistiqrār has been used by Mubarak since his first years in power. Since then he often reminded the Egyptian people that ʾistiqrār was his legacy both domestically and internationally, repeatedly using it as a pretext for conservative and repressive policies. I question how Mubarak's use of ʾistiqrār related to its ubiquity among some Egyptian groups and its general valuation among many people. I argue that the power of stability as a mode of "governmentality", cannot be fully appreciated at the level of political discourse alone. The ideal of stability predominated during Mubarak's rule through its very entanglement with peoples' values, their aspirations and the intimate politics of everyday life. Governmentality is thus approached here as a set of practices rather than a concept (Elyachar, 2005) and following Coronil (1997) I examine power at the intersections of state practices and their imaginative appropriation by people.

b. Class and its Everyday Politics

If the politics of stability divides the working class, how are class relations then articulated? How do some workers become *embourgeoisified* and others remain perpetually proletariat? How do the former relate to management at EISCO? I suggest that we must focus on workers' multiple subjectivities and the relations they foster in different spheres of the household and the community in order to get a clearer understanding of how they affect the class struggle at EISCO. Class remains an important tool of analysis of the changes occurring at EISCO. I argue against the view that 'class is dead' but also avoid determinist and reductionist class analyses, with their rigid understanding of the ownership of the means of production and a teleological view of history that assumes the inevitable rise to power of the working class. I treat class as a dynamic social relation developed in interaction with the locality. In this sense, class relations are neither 'fixed' nor easy to identify. Not every manager is bourgeois and not every machine-operator is a proletarian. Rather, I perceive class relations as "shaped largely by changing relations of production as well as cultural and political factors" (Wilentz, 1984, p. 10).

The object of this study are the ties between neighbourhood, family and work that inform work relations and how they are used in privatising capitalist gains, socialising losses, and reproducing a capitalist society. From this perspective, I view labour as "a relational value that emerges in between the spaces of commodification and socialisation" (Mollona, 2009a, p. 2). The treatment of

labour here is beyond just labour power but one that informs class formation as a relational process. Crucially, this highlights that who is a worker is contingent upon how multiple identities intersect and overlap (Lockman, 1994a). This wider view of labour and "expanded idea of class" (Kalb, 1997,p.6) as relational also benefits from a wider conception of production in society; one that does not limit itself to the production of goods but which follows from Marx and Engels in *The German Ideology* in considering production as simultaneously the production of goods, people, social relations and needs (Marx & Engels, 1970).

But I am aware that the explanation of group formation or class consciousness as contingent upon other abstract processes risks reducing class to a descriptive category (Joshi, 2003). Instead, following Latour (2005), I hold that recognising the processes of formation and re-formation of groups maps the whole social context for us. I consider class formation then as "an open ended, on-going process" where "classes are constantly remodelled by changing economic, political and cultural forces" (Lockman, 1994a, p. xxvi). In sum, classes are:

> "Not simply the transcendent, coherent, and empirically well delineated things they
> are often taken to be… Rather a relational concept of class can be used to specify the
> mechanism, processes, and shifts in basic social relationships that constantly generate
> frictions between current repertoires of "matter of fact" knowledge, daily work, and
> reproductive routines on the one hand, and the more abstract rationalisation and
> legitimations (ritualised in official public life and institutionalised in great traditions and
> state politics) on the other" (Kalb, 1997, p. 20).

Bearing this in mind, I focus in this thesis on how divisions between workers inside and outside the plant and the enmeshing of "networks of relatedness" (Carsten, 2000) in the work regime contribute to the on-going class formation and struggle in al-Tibbin. This inquiry is inspired by Mollona's suggestion that "anthropologists of 'the global factory' must look at the spatial and temporal interconnections between the visible, stable, respectable labour at its core and the precarious, invisible and degrading labour at the margins" (Mollona, 2009b, p. xxi). The repercussions of the legalisation of temporary employment in public plants from the 2003 labour law are thus central to the interconnections that Mollona highlights. The new labour law was criticised for attempting to fragment the working class by pitting permanent and temporary workers inside the same workplace against each other and weakening resistance to the neo-liberal project. At EISCO, however a somewhat different scenario transpired. Management capitalised on workers' valuation of

relationality and reproduction by limiting new temporary fixed-term employment (and daily labour) primarily to children and relatives of EISCO permanent workers. The status of permanent work contracts in the face of increased dispossession was elevated to what Parry has termed in his work on India "a quasi-property right" (Parry, n.d.). Permanent workers were thus recruited into supporting the restriction of tenured employment to a privileged group. The labour law dispossessed precarious workers outside the plant the most.

The emphasis on the fragmentation of workers' collective power in the literature on neo-liberalism thus needs to be reconceptualised and viewed as embedded within wider changes in class relations in the surrounding locality. As Nash (2005) has correctly suggested the anthropological focus on "deterritorialisation, creolisation, hybridisation, or fragmentation – often become reified as process and cut off from the political and economic context in which the contradictions between capital and human communities are affected"(Nash, 2005, p. 178). At EISCO, the importance of family relations to class formation reflects the local entangling of kin relations and systems of governance. As Joseph (2008) contends, in "the support given to families – and especially to connective and patriarchal notions of the family – in Arab societies {which} reflects the enmeshing of the kin contract into the system of governance and the embedding of family structures into political and other areas of social activity" (Joseph, 2008 p.21)**.** Kinship and relatedness are thus treated in this thesis as vehicles through which class relations are expressed.

c. Wazīfa and New Property Relations

There are numerous questions to explore regarding the relation between class divisions and the access to tenured employment, or what is commonly referred to as *wazīfa* ('office' or 'job') - usually referring to white-collar employment but also indicating permanent blue-collar employment in the public sector. For example: why do workers put such emphasis on accessing a *wazīfa*? And how exactly does this inform class formation and class divisions? I take lead from Parry (n.d.), whose research at the Bihlai Steel Plant in India shows that permanent work contracts are treated as a quasi-property right that enables the distinction between public sector workers as members of the middle class and contract workers in the unorganised sector as working class. Parry suggests that unlike the contract workers, who as a proletariat only own their labour power, which they sell to the capitalists, permanent workers own property in the form of their permanent contract, which gives them lifelong

security. Access to job security is in this case what distinguishes permanent and contract workers and is reflected in the different aspirations, life structures and material conditions of each group.

The distinction which Parry highlights in India was also salient in my fieldsite- with EISCO households often having very different life cycles, family structures, values and aspirations than other workers' households in the unorganised sector around the plant. Permanent workers at EISCO also demanded that priority be given to their own sons and daughters, if not more distant relations in the allocation of new jobs. The difference between those working inside the plant and others outside, was also a discursive one. EISCO workers, for example, were prone to calling others living and working on the fringes of the company town, "rubbish", or "Suqqiyyin" ("people of the market") or "thieves". The difference between *wazīfa* ('office' or 'job') in the public sector and *shughl* ('work') - namely just work with no reference to stable pay or contract, which delineates work in the unorganised sector- was also highlighted in everyday languages to distinguish the status of each group. People's understanding of *wazīfa* as a form of property resonated with historical debates on property relations in the Arab world, wherein property was delineated as both *milkiya* ('ownership') and *wazīfa* ('office'), respectively emphasising different claims to 'things/objects' and 'persons/individuals' as two ways of thinking of property relations (Mundy, 2004).

I thus suggest that at EISCO, permanently employed workers and their direct sons, relatives and people from their *baladiyyāt* ('those who come from the same home village or live in the same neighbourhood') who occupy temporary and daily jobs at the plant, tend to think of their jobs as a property and to see themselves as members of the bourgeoisie. Here I follow Hann's definition of property as "the distribution of social entitlements" (Hann, 1998: 7). This encompassing view of property makes sense in a plant like EISCO, which operated at losses for most of its history and thus complicates classical understandings of the relation between access to property, ownership of the means of production and surplus extraction. Conceptualising workers' jobs as a form of property that is integral to production relations also avoids the ethnocentric and liberal emphasis on materiality in property relations, which in turn derive from the tradition of Roman law's focus on things/objects of property (Hann, 1998).

But how can giving employment to sons and daughters of permanent workers turn workers who belong to 'the aristocracy of labour' into a middle class? The straightforward answer is that although passing on jobs to children has been a tradition in public plants since their inception, yet the precariousness of life conditions today and the lack of job opportunities, especially for educated

graduates, have turned this 'custom' into as a 'right'. However, academic answers are rarely straightforward. In this thesis I emphasise the importance of potentiality in understanding property, thus following Strathern (1996) who explain it as "a capacity for development as yet unrealised"(Strathern, 1996, p. 17). This is a type of property whose product is extended in the long term. In other words, access to a permanent contract gives workers middle class 'potential', should they be successful in maintaining the security of their jobs and extending that security to their children by bequeathing their contracts to them or by other means of acquiring capital. In contrast, those who fail to capitalise on it (for example to bequeath it) – those for whom the potentiality of their property is devalued by changes in the labour market – find themselves sliding down the labour hierarchy, or at best remaining only members of an 'aristocracy of labour'. Thus in divergence from Parry (n.d)'s conclusion, I argue that access to permanent jobs as property does not make workers a middle class, it gives them the potential to be one. This potential, I suggest is largely tied to workers' social reproduction and the inter-generational transmission of social entitlements. Whether a group is successful in doing so or not is important to their solidly identifying as members of one of class or the other.

The following chapters investigate how exactly a 'potential property' becomes realised and informs class relations. They describe how people slide up or down the class hierarchy, or simply 'how property works'. Following on from Federici's (2004) work, I am keen on tracing "the renewed cycle of primitive accumulation" where things held in common- from water, to land, to labour, to our genetic code- become privatised and create new rounds of enclosures (Federici, 2004). To do so, I pose some broad questions, such as: what are the wider, and perhaps competing, conceptions of social entitlements, which give permanent contracts salience in this locality? What do various property-holding practices tell us about the social relations that entitlements and inequalities are embedded within? How is land ownership, and workers' skills, for example, related to accessing a *wazīfa*? What type of capitalist exploitation and 'primitive accumulations' allow the social reproduction of hierarchies and class inequalities between organised and unorganised workers?

As Hardt and Negri (2004) famously argue, because labour is an immaterial and collective substance and not just an abstraction measured by labour time, it has to be regulated by capitalism, which has no control over its reproduction. Thus new types of property emerge, including bio-property and require legal innovation to establish their property status and provide protection of this immaterial labour. Similarly, Gudeman (2008) suggests that "new forms of property are continuously

being devised" (Gudeman, 2008, p. 74) which demand paying continuous attention to daily intrusions of the market in new spheres of life.

Gudeman's theoretical contribution is highly relevant to life in al-Tibbin. He suggests a model wherein he distinguishes between three terms: the *base*, *limited base* and *property* to delineate the changes brought about by new property relations. First, the *base* is defined as "shared material and non-material interests and values that mediate relationships" (Gudeman, 2008, p. 22). The base consists of the set of collectively shared components that vary widely across cultures and span from transmitted knowledge and shared assets to fixed resources (Gudeman, 2008,). In this sense, chapter one asks: could workers' skills and tacit knowledge- for example, like those that EISCO permanent workers share and have learned over the years- be considered a form of base or collective property? The *limited base* is a further development from the base, defined as "the bounded resource, which economists call a limited access commons (Ostrom, 1990)" (Gudeman, 2008, p. 22). It is a set of mutual relations and identities that are regulated by the market into a more practical and calculative arrangement (Gudeman, 2008). For example, skills shared by workers can become a limited base through their interaction with capital.[15] What Gudeman suggests is that base may be so intimately mixed with private property that it becomes colonised by market practice and language with the final effect that "base becomes property and property becomes base" (Gudeman, 2008, p. 86). With this in mind, I ask how labour, which is immaterial and relational, becomes objectified (other than in the waged-labour relation) under various new forms of property in Helwan.

Now if property is constantly being re-invented, how do new forms of property inform class relations? Relevant to rethinking property relations is the work of anthropologists who criticise the Western stress on the manual and non-manual divide in framing class relations, and who theorise the relation between class and property alternatively (Parkin, 2006; Parry, n.d.). In the Marxian definition of class, the proletariat sell their labour to the capitalist bourgeoisie, who own the means of production and survive by extracting surplus value (Marx & Engels, 1948). Although property relations remain central to conceptions of class today, it is difficult to explain exploitation under this definition when factories, like the Bihlai Steel Plant and EISCO, are often not generating profit in the market (Parry, n.d.). In searching for an expanded concept of class in these contexts, Parry (n.d.) adopts

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[15] For example, Gudeman explains that in guilds and trade unions, in which apprentices learn skills and knowledge in hierarchical circumstances, the "transmission of the property is limited to members who may pay a fee or perform a service in return for their access to a heritage that capacitates them to gain a market return, although originally this knowledge might have been built from an unpaid heritage"(Gudeman, 2008, p. 87).

Lockwood's (1958) deployment of Weber in looking at "the class situation" in terms of the elements of:

"*Market situation* (including source and size of the purse, degree of job security and chances of upward occupational mobility); *work situation* (the working relationship of its members given by the division of labour); and its *status situation* (its position in the hierarchy of prestige)" (Parry, n.d., p. 6)

But Parry is aware that the economic position of BSP workers should not be synonymous with their market position, arguing that their skills are not entirely subject to the market. Nepotism in accessing jobs, the fact that BSP workers treat their work as *de facto* property, and the expectation of customary rights to work until retirement all reduce the role of supply and demand in transferring skills.

Like Parry (n.d.), Parkin (2006) is also doubtful of the market's sole control over skill development and its transfer to others, including one's children. Parkin identifies the two main exclusionary devices by which the bourgeoisie or a dominant class constructs and maintains itself as a class as those surrounding the institutions of property and of academic or professional credentials. Parkin stresses the classical understanding of property as an exclusionary device. He is not only interested in property that members of dominant classes *own* but also the property that they *restrict* excluded classes from owning. Thus, Parkin (2006) follows Durkheim in thinking of the right of property "as the right of the individual to exclude other individual and collective entities from the usage of a given thing", adding that property is defined negatively "by the exclusion it involves rather than the prerogative it confers" (Durkheim 1957, p. 142 Parkin, 2006, p. 130). The central question in Parkin's work is how classes understand themselves as opposing groups, where dominant groups accumulate social and material privileges while denying them to others[16]. Throughout the thesis, I address how access to credentials, given the high unemployment especially of university graduates, has lost its status, while simultaneously the focus on permanent work contracts as property is

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[16] Weber's (1968) concept of "social closure", which Parkin adopts in his analysis, further clarifies how classes are formed based on the exclusion of others. Social closure denotes "the processes by which social collectivities seek to maximise rewards by restricting access to resources and opportunities to a limited circle of eligibles" (Weber 1968 in Parkin, 2006, p. 125). Social closure often entails distinguishing a social and physical attribute as a marker of status and justification for exclusion. But at the core, it is motivated by a desire to monopolise economic opportunities (Weber 1968 in Parkin, 2006, p. 125). The concept is important because it links social attributes, such as difference in gender practices across classes of workers, to their attempts to maintain material gains.

becoming more salient. By looking at the way permanent workers restrict casual workers' access to new contracts, I follow Parry (n.d) and Parkin (2006) in emphasising the *relational* aspects of class.

Most interesting about contract bequeathing among permanent workers is that it takes place beyond the formal dichotomies of the individual (i.e. sons and daughters, or direct lineage) and the communal (general public) (Hann, 1998). By looking at the continuum between these two poles within which contract-bequeathing practices among *baladiyyāt* ('those who originate from the same home village or town'), for example, are located, the social relationships within which permanent contracts are embedded, and the community values that inform their life choices takes precedence in the analysis. Following Thompson (1976), I wish to investigate the "inherited grid of customs and control within which that { Property} right was exercised"(Thompson, 1976, p. 337). Looking into the symbolic and social context in which property rights are recognised (Hann, 1998), the thesis maps a tentative relation between the value of obtaining higher education credentials, access to land, acquiring skills and access to permanent contracts as diverse markers of class differences. Expanding conceptions of property relations should therefore highlight both the material and the symbolic in mapping the distribution of social entitlements, workers' own understandings of those entitlements, and the wider theorisation of production in social life.

d. EISCO and the Post-Colonial State

Why do developments at EISCO seem however different from other public factories in Egypt? Is there something peculiar about steel factories in post-colonial states? Could we infer a wider role the state plays in shaping class relations? Not only was EISCO considered a landmark project in Egypt, but its name and reputation spread across the Arab world. Steel was important to the very representation of the Egyptian state as a powerful post-colonial nation. In turn, the nature and politics of the state became important to work and class relations at EISCO and I suggest, should become a separate object of study. Perhaps the clout of the steel industry is described best by Kotkin (1995) in situating the equally impressive Magnitogorsk Metallurgical Complex in the Soviet Union. "Steel, as the basis of the state's power and identity" Kotkin (1955) explains, "held a kind of magic aura, a glow nowhere more in evidence than at the gigantic Magnitogorsk Metallurgical Complex" (Kotkin, 1995, pp. 70–71). This magical aura around the steel plant and its ability to construct working lives and reconfigure agricultural land into an industrial town became intertwined with the power of the state itself. As Mitchell (2002) suggests in most post-colonial states, "re-arranging the natural and social environment

became a means to demonstrate the strength of the modern state as a techno-economic power" (Mitchell, 2002, p. 21). EISCO as a megaproject demonstrates the calculative and disciplining powers of the state.

However, in treating the state, I do not ascribe to it an intentionality, nor assume that it is a given and objective concept, but see it as "a multi-layered, contradictory, and trans-local sets of institutions, practices and people"(Sharma & Gupta, 2005, p. 6). I adopt the view that the state comes into being through forms of representation and localised everyday practices (Sharma & Gupta, 2005) which give it a coherent structure through power and control (Mitchell, 1991a) and create the vertical relations between the state and society (Gupta & Ferguson, 2002). Looking at how the state was imagined and practiced through ties between public officials, the plant CEO, members of the board, unions, managers, and workers, I map out how political power and neo-liberal governmentality were spatialised at EISCO and informed widespread discourses around the state.

But the state's contribution to shaping working class relations is more than the connection between steel-making and state-making. Parry (n.d.) highlights that the class division between permanent and contract workers is an outcome of the configuration of state policies and not only capitalist ones. Similarly Cooper (1992) looks at the complex relations in Africa between nationalist movements who aspired to control the state and labour movements that led them to power. He demonstrates that changes towards protection and de-casualisation of labour, for example with the Mombasa Docks workers in Kenya, had more to do with the expansion of political power of the nationalist movement than progressive economic strategies. Likewise in the Middle East, Owen (2004) argues that the comparatively slow pace of recent liberalisation in the region (compared for example to Latin America) is a product of continuous debates between public figures and state officials about balancing the grip over the political power and enabling economic liberalisation. In asking how groups are formed at EISCO, and how class inclusions and exclusions take place, I consider the practices and reproduction of state power as central to class relations in al-Tibbin and to the protection of EISCO workers from dispossessions common elsewhere.

III. Anthropology of Labour in the Middle East

Although public plants played a predominant role in Egyptian post-colonial and industrial history, there is very little academic work on the social world of those whose lives was spent behind

their walls. Theoretical writing on the anthropology of the Arab world focused primarily on Islam, segmentation and the harem (Abu-Lughod, 1989), which explains why "economic anthropology of the Middle East barely exists" (Elyachar, 2005, p. 22). A rich body of literature covers the history of labour in Egypt, particularly in the late nineteenth and early twentieth century before the 1952 coup, including memoirs written by labour activists in textile factories, most famous of which are Mahmud al-Askari, Taha Saad Uthman and Muhammad Yusuf al-Muddarrik (Abbas, 1968; Beinin, 2001; Beinin & Lockman, 1987; Chalcraft, 2001; Goldberg, 1986, 1996a; Lockman, 1994b; Uthman, 1972). These texts address wider struggles of labour against capitalism and the state, although do not emphasise the divisions and discrepancies within the working class. The literature covering controversies over neo-liberal reforms in recent decades frames the struggles within the triad of the coherent and too well delineated groups of workers, the unions, and the state (Goldberg, 1992; Handoussa & Potter, 1991; Posusney, 1997).

The existing literature leads Goldberg to conclude that "we are almost wholly ignorant of how these transformations are occurring in individual lives" (Goldberg, 1996a, p. 186). The lives of Egyptian workers remain largely unintelligible due to the clampdown on academic research and the policing of workers. Under the three successive regimes of Nasser, Sadat and Mubarak, the state security intelligence monitored the day to day working lives of labour especially within public factories. As Posusney (1997) argues, accessing workplaces put both workers and researchers at risk, which made the latter depend on officially documented strikes by journalists, labour rights centres and activist workers or focus on archival research. Only with the relative relaxation of state control during the late Mubarak period were some scholars able to conduct limited research inside factories and public sector spaces. They include, for example, Toth's (2002) study following the layoffs in Kafr al-Dawwar's plant, Shehata's (2009) research inside two textile plants in Alexandria and the yet unpublished PhD research of Marie Duboc in Shibbin al-Kum's privatised textile plant and Marten Petterson's work in al-Mahlla al-Kubra. Masters' dissertations by American University in Cairo graduates also offer interesting insights into labour politics during Mubarak's era.

The informal sector, easier to access with less attention from the state security, made room for some ethnographic research on working lives in Egypt. Studies such as Toth's (1999) of rural migrant workers in the construction sector and Elyachar's (2005) among workshop masters in al-Hirafiyyin have informed us respectively of the invisible contribution of seasonal rural workers to the stabilisation of the state's economic plans and of the state's use of social values to expand markets. A

growing anthropological literature also capitalised on the relative ease of research in the informal sector to document the experience of impoverishment and everyday politics of community, households, space and policing (Ghannam, 2002; Hoodfar, 1997; Ismail, 2006; Rugh, 1984; Singerman, 1996).

The fact that EISCO appears repeatedly in accounts of workers' industrial action while very little is known about the composition of its labour force (other than political affiliations) in terms of origin, age and kinship systems bears out Goldberg's observation that "writing labour history in general and Egyptian labour history in particular has been closely tied to self-proclaimed progressive projects"(Goldberg, 1996b, p. 186). Perhaps this commitment to self-proclaimed progressive projects has rendered the analysis of family and community life separate from, if not secondary to, the domains of production in Egypt. In fact Toth (1999) summarises the three major works on organised labour in Egypt and laments similarly their pre-occupation with official politics through the focus on "the dismal political clout of organised factory workers against the state (Posusney, 1991); the discrepancies between industrial organisation and political doctrine (Goldberg, 1986); and the political astuteness of those otherwise dismissed as exhibiting false consciousness (Beinin and Lockman ,1987)" (Toth, 1999, p. 6). The literature on neo-liberal reforms in Egypt- largely produced by economics and political science departments- has likewise emphasised therole of the state in introducing reforms, its relation to the labour market and to business interests (Assaad, 2003; Handoussa & Potter, 1991; Heydemann, 2004; Posusney, 1997).

Only a few accounts provide a picture of people's everyday lives without considering the state as a coherent body. They reveal instead the calculative practices of various actors that separate a domain for political control, named the economy, and the resulting artificial creation of two separable objects of state and society (Mitchell, 2002). For example, the first ethnographic study conducted inside two organised factories by Shehata (2009) illuminated how certain workplaces function as "a state within a state"(Shehata, 2009, p. 127), which in turn reproduces authoritarian practices in everyday life. However, local and domestic lives of workers were undermined in the analysis of in the reproduction of authoritarian politics, which were instead ascribed to a 'culturalist' rationale.

By the same token, state repression in the wider Middle East and the general preoccupation with writing on regional wars, religious movements and gender relations limited ethnographic-based work on economic transformations and class relations in the region. Only a handful of ethnographic

studies of labour recently highlighted how coercion and consent influence the flows of Syrian migrant workers in Lebanon (Chalcraft, 2008), how the social exclusion and violence produced by Bahrain's *kafala* system- used in employing Indian migrant labour- result from a strategic arrangement by the state to protect citizens from neoliberalism at the expenses of migrants (Gardner, 2010) and the meaning that workers give to economic and political transformations in modernised industries in Turkey (Sugur & Nicholas, 2004). Other valuable studies have emphasised how religious discourse has discounted and articulated workers' grievances during the Islamic Revolution in Iran (Bayat, 1987) and how class relations are delineated within state-owned sectors in Syria (Longuenesse, 1979).[17] Although Lockman (1994a) argues that examining the Middle East's work history on the assumption of a supposed common culture or similar historical processes is bound to be unsatisfying, such studies he maintains, remain viable when political entities are recognised as historically constructed and not natural ones. Mapping out similarities in state formations and trajectories and capital flows that shape class struggles helps us understand not just the recent toppling of regimes in the region but also how they endured over the years. Such investigation shows how regimes in the region persisted not just by means of coercion and policing as mainstream narratives advocate, but also by capitalising on the meaning of work, its centrality to people's lives and the divisions within the working classes.

IV. Research Methodology

The research for this study was conducted primarily with three groups: workers on the shop-floors of EISCO; leftist activist workers and ex-unionists; and workers' families in the company town, the villages and new satellites cities around the plant. The research spanned 22 months between November 2008 and August 2010, with 15 days' interruption while I visited London in 2009. As a native Arabic speaker, I did not undertake Arabic training.

Although I had set out to conduct fieldwork inside EISCO at the same time as residing in Helwan, this was not feasible for reasons I explain in the following section on positionality and access to the field. Instead, in February 2009 I received permission to conduct research inside the plant. I spent a year (until February 2010) visiting the plant three to four days a week and spending the remainder of the weekdays visiting different members of workers' households. Most workers operated on a rotating shifts basis – *warādī mutaghayra* – with the times of the three shifts being

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[17] See Lockman (1994b) and Beinin (2001) for a review of working class histories in the Middle East.

from 6 am to 2 pm, from 2 pm to 10 pm, and from and 10 pm to 6 pm daily. Some shop-floor workers and most administrative workers, engineers and management operated on a normal shift – *wardiyya ʿādiyya* – from 8 am to 4 pm. I was only granted access to the plant on a normal shift basis. From March 2010 to August 2010, I did concentrated research among EISCO families, especially in the company town, where I resided from June to August 2010. The division between 'family research' and 'work research' was structured by my experience as a 'home' anthropologist, who, given her complex relation to the field, became implicated in reproducing the separation of the public and the private spheres.

e. Labour Activists and Trade Unionists

While I waited to arrange a permit to access the plant and searched for a family that would host me in Helwan, I spent the first three months of the research (from November 2008 to January 2009) gathering oral historical accounts from leftists, ex-unionists and labour activists from EISCO, some of whom I had been introduced to through friends in leftist circles when I was doing some pre-fieldwork research a year earlier. In addition to gathering oral historical accounts about labour activism in the plant, I received a plethora of documents, which they generously entrusted me with. These documents recorded different strikes, workers' demands to management, court cases, leaked management documents, and workers' publications at EISCO over the years. The activists also invited me to attend their meetings in a labour rights centre and in the al-Tagamuʿ party branch in Helwan, and to visit their houses, where their families kindly received me.

This initial research helped me situate the official politics of the unions and collective actions in the plant within a longer historical time-frame than the period I was about to research. Two very generous leftist activists and ex-unionists, one retired and the other still a worker in the plant, dedicated time to introduce me to other people in the left at EISCO and took me along to their meetings. Their presence facilitated my introduction in al-Tibbin. Much of my fieldwork followed a similar pattern, in which a usually male informant, friend or research assistant who was culturally resourceful and esteemed by others initially helped me to enter male-dominated spaces, until my presence among the men was accepted without the need for the third person's presence. The first three months of the research were also used to conduct archival research, at the archives of *al-ʾAhālī*

newspaper, about EISCO's political and economic situation as covered by different newspapers. The newspapers extensively documented the losses EISCO made over the years and the 1989 strikes.

f. Workers on EISCO's Shop-floors

Before I settled on the choice of the Steel Plate- and Sheet- Rolling Mill, where most of my ethnographic research was conducted, I spent the first six weeks inside EISCO visiting, accompanied by representatives from the social affairs department, most of the various mills and divisions to familiarise myself with the entire production process. From the beginning, hierarchy and seniority at the plant presented themselves as key to sociality. I could not chat to workers directly until I had gone through a process of paying respect and interviewing mill heads first, then section engineers, followed by senior workers and finally arriving at temporary and daily workers. This tedious process helped me capitalise on the contradictions that sometimes appeared in management and workers' stories about work and the state of production. Yet counter-intuitively, many managers were sympathetic to the research, particularly alarmed by the state of the plant, and generously shared a lot of details that I would otherwise have never known about the 'high politics' in the plant. The head of the furnace division was keen to show me areas that he claimed the CEO would deny existed in the plant – such as the area nicknamed *al-kilār* ('The Killer'), discussed in chapter four. But others, like Sameh from the social affairs department, remained confused and unhappy about the hassle caused by my research, asking whether it was not better that I sit in an office and speak to 'a sample' of workers, and complained that I was not serious enough in my research because I did not carry a questionnaire to distribute around. In the days that followed, we reached an agreement where he could sit in offices, while I went around the shop-floor, usually accompanied by an enthusiastic engineer or senior worker. Sameh was running for union elections and so found the opportunity to talk to people, and particularly to discuss favours around booking the plant's summer vacations, useful.

But the presence of a female researcher who did not carry a questionnaire around and was more interested in chatting to male workers was a source of curiosity. It seemed to perplex everyone and to cast doubts on both my abilities as a researcher and my 'moral' character. In the months that followed, I appeared on the shop-floor carrying a black notebook in which I scribbled notes every few hours to justify my presence. The black notebook put the contested gender and occupational norms at peace. The workers and some of the engineers who perceived value in the research and were

enthusiastic about documenting the state of neglect of the plant, unjust working conditions and the corruption of upper management, were particularly welcoming of the notebook. The notebook reaffirmed that *this* – whatever we lived during the day – was documented. Some of the workers and engineers would come by during my fieldwork and ask explicitly that I document *this* last fight that occurred with management, or *this* new policy or *this* argument or accident that had just occurred. When I did sometimes write a note about these events in my observations, they made fun, jokingly wondering whether it was this last piece of gossip I was now writing about, or another one. Although I claimed authorship and responsibility for whatever was in the black notebook, with time it became a collective document we shared on the shop-floor to highlight what needed to be documented, included, excluded or sometimes even ridiculed, as, for example, when Karim, one of the temporary workers, was making fun of my fascination with finding traditional amulet signs dipped in blood on the walls of the shop-floor, and joked that it would fit well into my section on the folkloric aspects of working-class habits.

I settled on the German-built Steel Plate- and Sheet- Rolling Mill after finding that the working conditions, state of machinery and technology were more or less representative of the rest of the plant. I also chose this mill because its management had organised a week-long training workshop for the new temporary workers, which coincided with the time I first visited the mill. I attended the workshop, which was in a makeshift classroom off the shop-floor, where the 'classes' were 'taught' by the shop-floor engineers. The classroom setting, with its jokes, gossip, questions, exams, results and so forth, enabled the young workers, the engineers and I to develop friendly relations, which made my introduction to the shop-floor much more natural. It also gave me the necessary minimum qualification, having being sufficiently 'trained', to be on the shop-floor. After nine months at the Plate- and Sheet- Rolling Mill, I conducted a month's research at a similar but more technologically advanced mill built by Soviet expertise – the Coil-Rolling Mill, in order to compare the production process and work conditions in the two mills. Although this research recounts mostly interactions on the Plate- and Sheet- Rolling Mill, the research from the Coil- Rolling Mill helped in being aware of the specificities of the first mill.

I also spent two weeks towards the end of my research interviewing female employees, mainly employees in the plant administration and engineers in the plant, whom I had little access to on the two shop-floors. The time I spent interviewing them was particularly amiable and I enjoyed how they mocked male employees and how the latter, who were more comfortable with them,

sometimes having worked with them for up to thirty years, teased them throughout the day. I was familiar with the employees in the industrial relations department, including the women, because there was no private place on the shop-floor to change into my overalls and safety shoes, so I visited the department every day to change into my work clothing. The women there were very supportive and taught me a lot about work through the gossip we shared. The industrial relations department was always lively, with sandwiches and eggs distributed in the morning by Mohamed, one of the employees, who prepared and sold them to his colleagues, with employees calling to each other loudly across corridors, saving-group instalments being collected and friendly employees taking the time to chat with me about the plant, marriage, studies and their children. The gossip I learnt in the industrial relations department and shared with workers on the shop-floor was also particularly good for our exchanges of information, and made the exchanges we had a little fairer. The head of the industrial relations department was also very generous. He offered me his private bathroom to change my clothes and store them during the day and insisted I had tea every morning before I headed to the shop-floor. I learnt a lot from him and from the discussions with other administration employees in his office about management's policies. Although he was rather politically conservative, reading the daily state newspaper *al-jumhuriyya*, and avoided open criticism of the CEO, he was still critical of the regime and very eloquent in his social commentaries.

I was not, however, allowed to formally work for a wage at EISCO. The total number of females in the labour force during my fieldwork was 110, all of whom either occupied administrative positions or were engineers, which meant they had their own offices and socialised very little on the shop-floor. There were no female workers on any of the plant's shop-floors, so the idea that I would work for a wage on a shop-floor was out of the question. Given the scarcity of temporary work at the time – for example, the only three female temporary employees, who were computer science graduates, were also relatives of 'big shots' in the plant – securing waged work would have increased the privileged position I already occupied. Once I settled on conducting research in the Steel Plate- and Sheet-Rolling Mill, its management enabled me to negotiate some informal non-waged work. I met some resistance from workers to my working on the shop-floor as a female that was difficult to bridge initially, and I spent the first couple of months only assuming the role of a 'formal' researcher, who hung around, asked questions and gathered documents from the mill, before I was allowed to contribute to helping the shifts by the main rolling machine that I focused my research on: writing production on the board, helping the control room operator and doing some painting during general

repairs. Writing production on a blackboard alluded to being a teacher in a class room, which is a job widely accepted for females and was thus deemed sufficiently feminine for me to do.

Although female ethnographers doing research in the Arab world often find accessing male spaces difficult, the demographic in the plant helped to ease this somewhat. Given that there was no recruitment in the plant for sixteen years between 1991 and 2007, permanent employees were in the age bracket between 35 and 60 years old (although, given the significant reduction in job openings since the early 1980s, they were mostly at least 45 years old, and largely in the age bracket between 50-60 years old). I was 25 years old at the time of my fieldwork at EISCO, and thus many workers and engineers, having married young, treated me like their daughter, and the younger ones referred to me as a 'younger sister'. Of course I received my fair share of being gossiped about for spending too much time talking to this engineer, or that worker, and also received looks, flirtatious comments and poems slipped into plant documents. However, the possibility of sexual politics was significantly reduced by the age difference. I was particularly careful to stress this age difference by mixing between calling the older men *ḥadritak,* which is a formal way to address people of older age and higher status, and the less formal *inta* (the difference between the two terms is a bit like that between the French *vous* and *tu*) and like the young temporary employees I also called permanent workers with the title *ʿamm* ('uncle'), which is often used to address older people. This thus created a gendered boundary through age. The old permanent workers also took on the role of the 'gender guards' on the shop-floor by monitoring my interactions with the temporary workers, to whom I was closer in age. The male workers and engineers insisted on calling me *duktura* ('doctor'), which is usually the title given in Egypt to anybody that starts a PhD, while the female workers all called me by first name. Calling me *duktura* justified my presence on the shop-floor and created the necessary discursive distinction to allow me the material closeness I was sharing. Although I initially felt like a very incompetent ethnographer for being called by a title by my informants, I realised later that being called *duktura* was what enabled me to spend time in the workers' collective makeshift room that was annexed to the shop-floor, where we shared tea and food, went underground beneath the machine, sat in offices with the engineers and spent hours chatting informally and joking on the benches around the shop-floor to workers and in various other ways breaking otherwise rigid gender rules.

As well as the title *duktura,* embodied gender practices enabled me to maintain gendered boundaries necessary to conduct this fieldwork in a rather conservative setting. These practices included looking down when walking in a public space, adopting a rigid walking pace that reflected

seriousness, keeping one to one conversations brief and crossing hands when surrounded by too many men. Like the embodied norms, I acquired also "embodied skills" (Prentice, 2008) which enabled me to understand the tensions around work on the shop-floor, its load and semiotic meaning. Although I did not work manually with tools and crowbars, by writing production on the board I was engaged in the negotiations regarding how production is calculated, how workers buy time and how the work pace is regulated . Similarly, working in the control room next to the main operator made me realise the type of skills and working relations needed to operate the machinery as discussed in chapter one.

I also learnt a lot from chatting to workers directly about events on the shop-floor and especially through shared gossip and jokes, which captured the tensions and double meanings that direct narratives could not communicate. The work pace was mostly left to workers to organise, which they generally did by dividing the work amongst groups every few hours. As a result there were always several workers resting and plenty of time for discussion on the shop-floor. The regular breakdown of machinery also offered the opportunity to chat to workers freely without interrupting their work or jeopardising their safety. When they were not in their annexed room, workers often rested in the control room because it was air-conditioned; many conversations took place on the back bench behind the operator. The lively and entertaining group discussions enabled me to learn from workers' conflicting memories and narratives and enabled me to debate and discuss my latest findings regularly with workers. One way to make our exchanges relatively fairer beyond the usual food exchanges and informal connections we shared, was taking photos of groups of workers, printing them and giving them as presents on the shop-floor, which workers found were good souvenirs from the workplace.

I was overall made to feel at ease on the shop-floor and given the space to do what I wanted, although the production engineer on the central rolling machine became the main person responsible for my presence, whom I reported to for attendance. He facilitated much of the interactions with workers and engineers, gave me access to the mill's official documents but also often restricted my movement in the name of 'protecting me' from workers. The plant engineer helped me access official data about employment from the industrial relations division and data on production he had himself gathered. I also used a survey on each of the two shop-floors, to get background workers' ages, residence, numbers of children, pay and job satisfaction in order to compare them to official mill statistics. I had access to the plant's wider statistics about employees through the industrial relations department; although the administration worker responsible feared giving me permission to

photocopy them and instead dictated them for me to hand copy over a few days in what seemed to his colleagues like comical tutorial sessions.

g. Workers' Households and Community Life

My access to workers' domestic lives was first enabled by residing with a family in one of the satellite cities of Helwan, before being asked by state security intelligence, as I will explain in the coming section, to leave their house. The family of Magdy, a Christian steel worker at EISCO, his wife *'Umm* Rami, an unemployed house-wife and their children Rami, an engineering university student, Leila a preparatory school student and Wassef their youngest who struggled with learning difficulties, introduced me to daily chores and routines of lives in Helwan. When we travelled or went to reside with *'Umm* Rami's extended family, which lives in one of the village of al-Saff, I could easily compare the difference in life expectations and structures between Rami and Leila and their relations to their cousins whose parents were either peasants or employed in casual work. Magdy, who moonlighted with a job as an aluminium wire supplier invested primarily on his children's education and the upward mobility of the family.

Other workers on our shop-floor would generously invite me to spend the day with their families or to different wedding and social occasions in the company town, towns around Helwan and the villages around the plant. When I met 'Amgad, who later assisted me with research in the company town, he was working as a daily worker on the Plate- and Sheet- Rolling Mill. He was also a son of a deceased EISCO worker and a resident of the company town. 'Amgad was almost my age, funny, street smart and an astute social commentator, and we became friends instantly and we negotiated working together. A garment worker in a workshop, his mother was among the few working women in the area and became a source of emotional support in the field and a long-term friend. Through *'Umm* 'Amgad's family, including 'Amgad and her four daughters, I discovered the other side of the upwardly mobile communities at EISCO, and how some EISCO families were sliding down the labour hierarchy. With 'Amgad, I conducted systematic interviews in different parts of the company town where he knew people. These household interviews enabled me to gather life and household histories that traced transformations within the EISCO community over decades. We also conducted interviews in the *bīyūt 'ahālī* areas, where most of non-EISCO households of the al-*tabābna*, the original owners of the land and now largely casual workers, were located. These

interviews enabled me to compare both sets of lives and expectations between those of EISCO households and those outside.

During the same time, I resided in the company town from June to August 2010. *Duktur* ('doctor') Hussam, a generous friend I was introduced to at EISCO, lent me his house in the company town in al-Tibbin to reside in, while he moved to his family house in the nearby village in al-Saff. Having joined the plant originally as a blue-collar worker, *Duktur* Hussam continued to study up until receiving a Doctorate in Philosophy. He continues to work in the plant administration having been denied the teaching post he deserved at university because of the nepotistic and corrupt networks in the academy. *Duktur* Hussam generously introduced me to households in villages around the plant where EISCO workers resided, including his own village of Neguʿ al-ʿarab, but in the thesis I do not focus on aspects of village life and households partly because it was difficult to cover such huge geographical area systematically in the short period of fieldwork.

My staying in an apartment alone despite being female in the company town was socially tolerated partly because my next-door neighbours were Christian: a retired EISCO worker Mounir, his wife ʾ*Umm* Karoline and daughters. Being from a Christian family myself, it was considered as if I resided with extended kin. We did indeed spend most days with the doors open, cooking together or visiting each other. Mounir's family struggled after he left EISCO, making me sensitive to the distinctions between those inside and outside EISCO. Spending time with ʾ*Umm* Karoline's youngest daughters in the company town's sports club, attending aerobics classes together, going to the market and generally contributing to chores and duties in the company town helped me understand the particular experience of women and children, which was not covered during my research in male spheres inside the plant. Accessing both spheres of household and work enabled me to think of labour and class relations in wider terms beyond their formation on the production line.

V. The Researcher and Accessing the Field

At the outset of the research, I planned to find access to the plant while living with an EISCO family. My experience in securing both made me aware early on of my structural position as a researcher, who was born and lived most of her life in Egypt before pursuing graduate studies in the U.K. The complexity of studying one's own society is well articulated in the anthropological literature

that stresses the dilemmas of being simultaneously both insider and outsider. The difficulties faced by Arab women conducting anthropological fieldwork in their own societies, for example, have been the subject of a volume by Altorki and El-Solh (1988). Difficulties accessing male spaces because of gender norms, difficulties bridging class divides and the researcher's privileges as a Western-educated woman are all addressed quite empathetically in the volume. While it is not perhaps helpful to contribute one more story that reiterates the above-mentioned difficulties, I do think that the complex relationship I had with the field as an anthropologist from Egypt helped me to better understand – though not always through pleasant encounters – the structures and relations I had set out to explore. As the method of participant observation always seems to, it taught me to learn from the confusions, discomforts and contradiction my presence created in the field. These discomforts, however also contributed greatly to structuring my fieldwork.

Finding a family that would be willing to host me seemed almost impossible at the outset. The idea seemed so foreign to the different families we approached that one day an old woman in one of the villages challenged it openly. She asked where my family house was so I explained it was in Masr al-Gadida (Heliopolis in English) - not more than 90 minutes away from al-Tibbin [18]. She said: "Why don't you just stay in your family house, instead of research and no research and living in other people's houses and all these foreign things". I was asking my informants to break both gender and class norms; at this close proximity to the anthropologist's personal and fieldwork life, these norms were even harder to transgress. It was not just that my family had a house I could easily commute from, but also I came from a Christian family, whose religious affiliation is easily identified in the family name. It was highly unlikely that as an identified Christian single woman, I was going to be easily and naturally accepted with the level of intimacy required by fieldwork in a largely Muslim society. This adds another layer of the insider/outsider dilemmas of home anthropology - being of Christian local origins reduced the extent to which I was an 'insider'. Although I developed strong and lasting friendships with Muslims in the community, the intimacy that residence requires was not easy to bridge, especially without sufficient earlier interaction. I was thus lucky to meet Madgy's family who were kind enough to receive me in their three story family house. Magdy, a local Christian who had also been active in leftist groups for a short period, was progressive enough to accept my breaking of gender and class norms. But it was essentially the religious affiliation, or rather how I was classified as

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[18] Heliopolis being well-known as a rich district, I often said Madinat Nasr, which is near Heliopolis, still middle to upper class but less *sine qua non* bourgeois. It was difficult to hide my class background by lying about where my family lived because people in Egypt tend to ask specificities about the location where you live you once you mention the neighbourhood.

a Christian by virtue of familial affiliation that facilitated my integration. Christians in the community considered me almost like a kin, usually using the word '*ukhtina*' ('our sister') and went out of their way to make sure I was sufficiently cared for. If I was aware of my identity as a female and as a person from a certain class background my religious affiliation became something that fieldwork rather than personal life, made salient.

Meanwhile securing access to EISCO was also problematic. As Shehata (2009) explained, official permits were never an option for getting inside public plants and one's own social networks were essential to secure this access. I initially tried to approach the matter through ex-unionists contacts on the left, but their attempts failed. I reluctantly then turned to family connections, which I had been adamant to avoid, not out of conviction in the official channels in a context like that, but partly because I was hoping to hide my familial affiliation. I originate from one of two well-known Christian political families in Egypt, whose career in politics has spanned over two generations and is known for its large land-owning feudal past. Two of these family members were women well-known as among the very few women to hold high political position in Egypt. This easily creates the assumption that since I was interested in politics, I would follow suit. The family name immediately places me in a privileged position that deters possible normal interaction. The family name also affiliated me with the establishment. The main political figure, Makram Ebeid, was a nationalist leader who was known and respected for resisting British colonialism in the early twentieth century, more recent relatives were members of parliament and participated in government.

As a self-identified leftist, I spent the largest part of my adult years attempting to separate myself from the politics of the family and the privileges it brings. I often went by Makram instead of Makram-Ebeid among friends and was hoping to do the same during fieldwork. Doing so also gave me the opportunity to reflect the genuine experience of growing up without the privileges that the family name infers, having been brought up by a single mother of modest middle class background, who struggled to cover for her children after ties with my father's family were severed.

But my plans failed, the connection to the plant was secured through generous family members and I got access to EISCO instantly after meeting the CEO. Because of this identity, I was never asked how long my research would last. I capitalised on the fact that the managers responsible for my stay were too embarrassed to ask the CEO about my status. For the rest of the fieldwork I had

to constantly manage the dialectics of the family name, the privileged position it puts me in and my personal convictions and fieldwork requirements.

Although this could be distressing when it was often assumed that one was a simple product of their background and when I could not use family resources when many workers asked for help with securing jobs for their children, I did manage to convey my commitment and personal convictions through everyday interactions. This was suggested when one day a worker who had been repeatedly dismissive of me explained that he had thought I was working with the ministers that want to privatise the plant and that I was gathering information for this end, but after over six months on the shop-floor he was convinced otherwise and wanted to apologise for mistrusting me. With time I also learnt to use this background to tweak resources and connections here and there that helped my informants and which seemed fair in exchange for the generosity they offered me. Class relations became the frequent object of our discussions after reaching a context of comfort in comparing our varying backgrounds in wider social commentaries.

It was also this privileged background that shielded me from a much riskier situation that threatened to end my fieldwork when the state security intelligence intervened and why I primarily bring it up here.

After three weeks of staying with Magdy's family and persuading the company bus driver to take me to work on the same bus, I was called into the CEO's office who told me he had reports from state security intelligence that I was staying at Magdy's family, was active in the leftist circles and visited labour rights centres regularly. [19] Shouting and scolding me, he said I had tricked him and that unlike my relative who had secured the access, I was acting immorally by staying in other people's houses and somehow inciting Christian workers to revolt in the plant. Responding spontaneously, I managed to blame my 'foreign' supervisors for setting requirements such as residing in Helwan and socialising with workers, which were insensitive to the local context, and to pretend that I had only visited the labour centres for research purposes. I assumed the privileged background and pretended to be a naïve bourgeois girl whose lack of understanding of real life put her in tricky situations. My background helped protect my security and to salvage the part of my research inside the plant. But I was asked to leave Magdy's family immediately, told not to interact with workers outside the plant

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[19] It might well have been that state security intelligence was no more than a few workers who had followed my interactions and talked to the CEO. There was no way to know, but the level of details the CEO had and the fact that a close friend was detained two weeks earlier by state security intelligence gave some credibility to the CEO's story.

and warned that next time my family connections would not be enough. We were also lucky that Magdy's family was not harassed and did not have to pay the price of supporting the research. Inside the plant I was to be followed by a representative from the social affairs department and a managers' bus was to pick me up every morning from my family house in Heliopolis to make sure I was not interacting with workers without management's consent and was definitely now staying in my family house.

For a few months I avoided contact with Magdy's and other workers' families in order to protect them and myself from unintended consequences. Thus the research on working lives at EISCO became separated from my research on their domestic lives. Once I had finished the research inside EISCO and was not worried of being thrown out of the plant, I gradually opened up networks in the community, until in June 2010 I began staying in Hussam's house. Staying at Magdy's family home again did not seem however still safe and it made more sense to avoid putting them at risk.

Inside the plant, things were also negotiated indirectly, with the social affairs representatives pretending in front of the administration manager to spend the day with me but leaving me as soon as we left his office. Towards the end of my research, I began engaging openly again in politics and assisted in organising activist events in Helwan with some of my neighbours especially after the revolution. Home anthropology was thus more complicated than I had imagined it to be, but in a sense also offered plenty of opportunities to use the tensions to expand my understandings.

Perhaps one of the best opportunities that fieldwork offered me was not just researching class, but living and re-negotiating these class divisions. The opportunity to engage in the struggles of many brave, resilient and generous people against capitalism, the state and various types of injustices, even if at a limited level by simply narrating fragments of their rich lives and the long-term friendships that have lasted beyond fieldwork, are some things that make PhD research worthwhile.

VI. Thesis Outline

The discussion of the relationship between the development of the value of *Istiqrār,* work contracts as property, and class relations at EISCO is discussed in the following chapters as follows:

Chapter one introduces the Plate- and Sheet- Rolling Mill and asks how the labour process is rearranged when public spending on machine renewal is cut. It looks at arguments and disputes that take place on the shop-floor to highlight how skills and work relations develop with tenured employment. I argue that permanent work contracts enabled workers to develop skills and relations that became even more important to EISCO with the neo-liberal spending cuts. Permanent workers' status as an aristocracy of labour is partly produced on the shop-floor.

Chapter two looks at the jokes that are exchanged on the shop-floor to highlight the changing relation between permanent workers and engineers, who are the shop-floor managers. The central question is how managers control workers under neo-liberal conditions. I look at competing types of property on the shop-floor and suggest that the spatialisation of neo-liberal technologies under Mubarak's repressive state weakened middle management and gave permanent workers more control over work.

Chapter three asks why permanent workers and temporary workers say they are 'like father and son'. I argue that the use of fictive kinship idioms at the production point enable permanent workers to exploit the labour of temporary ones who, in turn, acquiesce in the hope of securing permanent work. But the prevalence of such idiom and the presence of some actual fathers and sons at EISCO obscure the privatisation of permanent workers' collective and tacit knowledge and their gradual phasing out through their gradual replacement by new workers.

Chapter four looks at the value of work at EISCO from the point of view of the daily-waged workers who work in the plant and aspire to climb up the labour hierarchy. I address how daily workers' valuation of *ʿistiqrār* ('stability') and their hopes and expectations shape the experience of work. Hopes and expectations nurtured outside the plant are important to structuring everyday work.

Chapter five looks at the politics of intergenerational reproduction among EISCO households in the company town. It maps out how succeeding or failing in reproducing one's position in the social hierarchy fragments EISCO's labour force into an upwardly and downwardly mobile one. But I suggest ways in which the more salient distinction between permanent workers and casual workers who live *bīyūt ahali* contributes to the on-going divisions within EISCO's labour force.

Chapter six looks at union politics and collective actions at EISCO. Comparing the history of activism in the plant to the current one and I argue that direct coercive methods in addition to the plant's capitalisation on workers' valuation of extending their relations inside the plant did not end collective actions but changed their patterns into largely sporadic and non-organised one.

Chapter One: Producing Skills, Relations and Workers' Control

I. Introduction

It's Shaʿban's shift on the rolling mill. The '3-high rolling mill' broke down. It's a serious break; a hot steel slab is stuck vertically between two rollers. In this position, the bottom of the slab is close to the hydraulic oil underneath the rollers. There is a general panic on the shop-floor because if the heat of the slab reaches the oil, the mill could catch fire. Mazen, one of the old production workers in Shaʿban's shift, comes running down from the control room to help the other men push the slab with levers and crowbars. Shaʿban tells Mazen offensively to stay put in the control room. The mood is tense but it still seems like a time for jokes. A worker from the production shift of the furnace at the end of the mill gestures with his chin towards Shaʿban, whose back is turned, and looks at Mazen and then puts two fingers behind his head- Shaʿban is a donkey, he means. They both grin. Another maintenance worker passes by and tells production workers standing around the machine, only half-jokingly: "wardiyya naḥs"- "[you are] an ill-omened shift".

At this point, we hear shouts coming from what looks like an argument that just erupted a few meters away. A worker from the maintenance shift shouts at Mazen: "You [production workers] don't know how to work". Maintenance workers are accusing production workers of putting the wrong pressure on the slab from the control room, which moves the slab from its horizontal position to a vertical one. Mazen, getting angry, raises his voice in responding to the accusations. He instead blames the maintenance workers, who do not take enough time to repair the machines, which is why the rollers are spaced unevenly. Arguments in general, and between maintenance and production workers in particular, were everyday rituals on this shop-floor. I found it mesmerising however, that they rarely escalated.

Towards the end of the shift, Shaʿban comes to the black board on the side of the machine, where production workers mark the number of steel sheets produced and the breakdown time during each shift. He brings a sheet of paper and compares what is on the board to what he has written, then reduces the time of breakdowns on the board and adds a steel slab to the total. Another maintenance worker copies that a few minutes later. ʿAmr, the young temporary worker who is alternating with me in writing on the board today, explains the practice more accurately. Between maintenance and production, he says, "kul wāḥid b-yshīl marra, yaʿni binshīl baʿḍ'- "Each one covers for the other once, meaning that we cover each other". The days when they've produced a lot, he continues to explain,

maintenance and production workers agree to reduce the hours of breakdowns. When production is low they agree to increase the number of slabs and increase the breakdown time. Whatever is written on the board during the day is thus, always subject to being altered at the end of the shift.

Neo-liberal cuts on public spending have resulted in the deterioration of the machinery in most of EISCO's mills. The lack of spending on renovations and the reduced quality of cheap spare parts both increased the skill needed to offset technological limitations and amplified the load of manual labour on the shop-floor. The new division of labour that accompanied these changes was demarcated between permanent contract workers, who had been employed in the plant for years and developed skills over these years, and new temporary and casual workers, who had been working in the plant for no more than two years at the time of my research. On the Plate- and Sheet- Rolling Mill, where most of this research was conducted, work was never run under Taylorist scientific management specifications nor organised in the typical Fordist assembly line known for its de-skilling of the labour force. The machinery being already old since the start of operations in the plant, and speculated to have been supplied second-hand from German manufacturers, enabled the cultivation of skill since EISCO's inception. This skill became a source of pride for workers and was, counter intuitively, valued even more under neo-liberal production conditions. The relations between skilled and manual work and the work relations between workers employed under different contract conditions will be the subject of chapter three. This chapter however, addresses how technology changed with the policies of neo-liberalism and the growing control of permanent workers over the production process.

The changes in technological conditions also personalised the labour process and required greater cooperation and inter-dependence among workers. It therefore capitalised on the social relations that were cultivated among permanent workers over the years. Intimate friendships that develop with time (*ʿishra*) and relations between those who share similar local origins (*baladiyyāt*) facilitated this embedding of social relations in the work process. The immediate impression that one gets on the shop-floor is of a tense working environment riddled with loud fights and arguments among permanent workers. The increase in personal and emotional investments on the shop-floor often makes the work environment less agreeable. But the growing dependence on personal relations gives permanent workers greater control over their work. In addition, the tacit knowledge they have in their skills makes permanent workers rather un-alienated from their work and more difficult for managers to replace by other flexible workers providing the same labour power. On the shop-floor, having a permanent contract meant that one had a property in his/her skill and a wide network of relations, which was helpful inside and outside the plant.

II. Situating the Shop-floor

Most of my fieldwork at EISCO was conducted at the Plate- and Sheet- Rolling Mill (*qitāʿ darfalat al-ʾalwāḥ w al-ṣāg*). It is considered part of the hot rolling mills of the plant and is one of the oldest mills, which was established in 1954 with the assistance of West German company Demag. The production process in this mill continues to run with the same machinery brought by German manufacturers half a century ago.

The rolling mill transforms steel slabs produced at the other steel mills of EISCO into sheets and plates according to specified measures requested by the customer. Sheets are thinner than the plates. The first are later formed into products such as pipes while the latter are used in building bridges, gas tanks, reservoirs and industrial floors. The mill is divided into six main sections. The first is a shipment area in the backyard of the rolling mill, which receives slabs produced at the steel mills and arranges them according to production priorities. The second is the furnace area, which is made up of two main re-heating furnaces. The furnaces re-heat the steel slabs to 1830 degrees Celsius in order to prepare them for rolling. Next is the central machine of the mill, called 'the 3-High Rolling Mill'. The 3-High Rolling Mill transforms hot steel slabs coming out of the reheating furnace into steel sheets and plates of different sizes and lengths. The next section is the cooling and trimming section, which forms the product into its final shape. The sheets and plates are then piled up in a final shipment area at the far north end of the mill for storage and collection by various customers' trucks. The maintenance workshops lie on the east side of the mill. There is a different maintenance team dedicated to assisting workers at each different stages of production. The engineers' offices are located on the second floor of the mill, not on the shop-floor. Some administrative offices, such as the quality control and time-watch department are also located outside the shop-floor on the right hand side to the entrance of the mill. [20]

The mill has a total of about 250 employees divided primarily between maintenance and production teams. Each shift of workers, made up of six to seven workers, is headed by a head of shift (*raʾīs wardiyya*) and a shift supervisor (*mulāḥiz wardiyya)*, who are generally the most senior workers, overseeing four or five permanent and temporary workers. Two foremen, or head of shifts, *raʾīs warādī*, as they are generally called, supervise all production and maintenance shifts. However, like the rest of the managerial strata, including engineers, they now work the normal shift only from 8 am to 4pm while workers' shifts rotate day and night. Engineers are the managers on the shop-floor. They

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[20] See Figure 7 in appendices for an illustration of the 3-High Rolling Mill and Figure 8 to 12 in appendices for the production process at the Plate- and Sheet- Rolling Mill.

oversee everyday operations and plan the work load but do not work manually. The highest position a worker can have under plant regulations is that of foreman. Engineers, on the other hand, occupy managerial positions ranging from shop-floor roles up to the CEO. Many of the workers, especially the senior ones, are however paid higher than engineers. This is also because the incentive pay for the rotating shifts is higher than the normal shift. The mill is headed by a head engineer, who in turn is supervised by a head of sector. Most decision making power is concentrated with these two. The *qiyādāt,* ('the leaders'), from the general managers upwards, are given higher remuneration and privileges, but on an everyday basis they are all present on the shop-floor and all have managerial roles.[21]

My research focused on the machine called the 3-High Rolling Mill. This is a particular type of hot rolling mills, which is primarily used in steelworks and aluminium processing. Rolling mills are machines that process different metals by passing them between pairs of rollers to flatten them until they attain the form and size required. Hot rolling mills are usually used for shaping hot metal into sections before they are delivered to cold rolling mills for finishing into more precise forms. But some, like this mill, produce final products that can be used immediately. On the shop-floor, the rolling mill flattened steel slabs into sheets and plates of different height. The steel slab delivered from the reheating furnace passes through the mill several times, with the width of the metal being gradually reduced each time the slab passes until it reaches the required width. The machinery on this shop-floor could produce a limited range of products. It was for example unable to produce sheets more than 1.50 m in width and 9 m in length, while other new rolling mills in the private sector are now producing sheets to larger specs.

In the 3-High Rolling Mill, the steel passes through three rollers that are rolling in similar directions. The slab is first fed between a pair of rollers and then returned through the second pair on top. But this requires lifting by an elevator between both operations and thus new technology such as four-high mills, cluster mills and tandem mills for continuous casting have been developed in order to reduce the energy used by the machine and improve the quality of the steel product. Research into the history of rolling mills confirms that the type of rolling mill used in the Plate- and Sheet- Rolling Mill at EISCO, the 3-High Mill, is obsolete today (Lankford, 1985). The 3-High Mill model was in fact first patented by an American steel manufacturer named Bernard Lauth in 1864 with some improvements patented in 1872 and 1873 (Durfee, 1891, p. 597). The technology then spread from the

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[21] See Figure 6 in appendices for details of the organisation of management on the shop-floor.

United States to mills across the United Kingdom. The 3-High Mill was operating for example, in the early part of the twentieth century in Glasgow at the Clydebridge 3-High Plate Mill, which operated from 1922 to 1962 ("CLYDEBRIDGE STEELWORKS HISTORY," n.d.). The available photos indicate a striking similarity to the mill at EISCO today. Working with such an old technology thus presented, since the onset of the plant, a challenge to workers - enabling them to develop skills early on.

I was present alongside four rotating production shifts each with 6-7 workers who manned the 3-High Rolling Mill on a 24 hours basis in three shifts.[22] Each shift had at least two workers who were on temporary contracts and who did most of the manual work of pushing with levers and crowbars when a slab was stuck. Permanent workers, on the other hand, were mostly in the control room of the machine, which is slightly elevated from the shop-floor. Management only allowed me to be present in the normal shift from 8-4. As a woman, and perhaps because I was the only woman on the shop-floor, I was never allowed to do the heavy manual work done by the three men next to the machine. I did however assist workers in writing production figures on a black board. Later, I was also allowed to assist the operator in the control room in 'driving' the machine by pushing one of the joysticks, although my work was not very skilled and I was often brought to replace a brick that held the joystick.

III. Neo-liberalism, Skills and Social Relations

The chapter follows from the suggestion of Mollona (2009b)that "the 'old fashioned' world of industry and the working class has not disappeared, but rather has taken on new spatial and temporal configurations"(Mollona, 2009b, p. xiii). Permanent workers, who are rather like artisans, continue to work on the shop-floor with deteriorated machinery that can only function by capitalising on their skills and relations. Parry (2005) notes that "different types of industrial processes are associated with different intensities of labour and impose work disciplines of different degrees of rigour" (Parry, 2005, p. 155). Accordingly, the chapter uncovers how the size of the factory, its specialisation and the nature of production in this steel industry organise the labour force in a particular manner. Similarly, Burawoy (1979)compares two factories, Allied and its predecessor Geer, which differ in industry size (in terms of capital resources). Burawoy generates evidence suggesting that Allied and Geer responded to competition differently; one changed technology while the other reduced workers' piece rates, benefits and authority, thus changing the importance given to skill, seniority and unionisation in the

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[22] See Figure 13 in appendices for details of the organisation of production shifts at 3 High Rolling Mill.

factory and shaping the class struggles emerging on the respective shop-floors. Following these authors this chapter maps the relation between neo-liberal restructuring and the particulars of production at EISCO in order to understand what becomes of training, skill, job requirements and seniority at the plant.

A small renovation project took place in 1987 on the central rolling machine – the 3-High Rolling Mill. It helped transfer some, but not all, of the work that was done manually to the main operator in the control room. Very little renovation took place elsewhere on the shop-floor. One important element in the neo-liberal doctrine adopted by the state in Egypt is the reduction of public sector spending. This also includes lack of investment in capital in terms of spending on the renewal of machinery at state-owned enterprises like EISCO. The reduction in public spending was not just limited to a block on purchasing new machines or renovating the old ones, but affected even the purchase of spare parts. In recent years, EISCO thus shifted towards buying cheaper, but lesser quality, spare parts, for example from China and South Korea. In addition, a central maintenance workshop was built inside the plant in order to manufacture the needed spare parts locally, thus substituting for imported or purchased ones from the private sector. The central maintenance workshop manufactures a range of products from nails to oil seals to bushings – supplying the entire EISCO plant. Hence the internal demand on the central maintenance workshop from different shop-floors and mills is, understandably, very high. This in turn prolongs the period needed to deliver the spare parts to different mills and slows production overall in the plant.

The reduction in public spending at EISCO meant that workers in most mills continued working with old and worn-out machinery that is liable to repeated breakdowns. Production is consequently constantly interrupted, requiring a great deal of skill and manual labour in order to re-invent ways to offset the technological limitations. As the anecdote from Sha'ban's shift at the beginning of the chapter illustrates, these production conditions also create constant tensions between workers on the shop-floor. Nowhere can this be observed more clearly than between the production and maintenance workers, who are always arguing. Given the evaluation system in place historically, the antagonism between maintenance and production workers cannot be attributed solely to the breakdowns of machinery under neo-liberalism. Maintenance and production shifts are evaluated in antithesis to one another; maintenance on the time they spend repairing the machinery that breaks down (the less time they take, the better remuneration) and production on the total steel plates they roll at the rolling mill. This system of evaluation, which existed prior to neo-liberal policies, has thus always positioned production and maintenance workers in a conflicting relationship. With the machinery dating from

1954 and subject to more breaking down during the neo-liberal years, the fights between production and maintenance are today part and parcel of the production process. Additional pressure on workers to sustain production in turn inflated the fighting and tension on the shop-floor.

If one were to jump too quickly to conclusions, it could be said that neo-liberal cuts on public spending are fragmenting the working class at EISCO by increasingly putting the interest of workers in antithesis to one another. The fights and accusations flying across the shop-floor everyday seem, in the first instance, to reflect such conclusions. However, as the end of the anecdote shows, maintenance workers and production workers do in actuality collaborate together more than the preliminary story would imply. In fact they, more often than not, come to an agreement about the hours they are going to report at the end of the shift. One could perhaps read these developments along the lines of a Burawoy (1979) "making out" thesis, whereby hegemonic capital enables the exploitation of workers through their very consent. By making them engage in work competitions over piece rates, management gives workers the illusion of control over their work. Workers, who engage in a constant game of 'making out' whereby they compare work outputs and appear to trick management, when collectively agreeing over levels of maximum production, still enable capital to extract surplus, not through coercion but through consent. Burawoy thus reads the competition between different workers as benefiting the capitalist enterprise and leaving workers under the illusion of subverting the system. However, the developments on the shop-floor of EISCO seem to go beyond attempts of workers to 'make out'. Instead I suggest, starting from the very beginning by questioning how and why these negotiations take place and in what ways fights are related to the final compromises that are made. I argue in this chapter that the skills that permanent workers acquired and the long term relations they developed, especially when work was more personalised under neo-liberalism, contribute to the power they have on the shop-floor and their overall status. As chapter two will demonstrate, this has also been aided by the changes in managerial systems.

Braverman (1974) associates de-skilling of work with the advance of capitalism and the propagation of Fordist work methods. Since his landmark study, researchers of labour have criticised this teleological view and have argued that the move towards capitalism did not necessarily involve the de-skilling of work in all workplaces (Blum, 2000; Elger, 1979). Others have shown that Fordist assembly lines have not always been part of the modern factory regime and many workplaces abandoned rigid production systems early on (Carrier, 2009). They highlighted instead how alternative systems structured work in a way that was almost equally as effective as the Fordist line by making workers part of a bureaucratic system of rules and procedures and incentive pay-structures that gave

individual workers more control over production but reduced ties of solidarity between them (Edwards, 1979). The focus on how lateral fights between managers and workers have been turned into ones between workers, who compete over piece rates and thus consent to the hegemonic tactics of capital, without the need for the despotic coercive measures highlighted by Braverman, became rather prominent in studies of the factory following Burawoy (1979). But Mollona (2009b) argues that both studies that highlight coercion and consent in getting workers to work, relate their experience of work and their consciousness to the division of labour on the shop-floor and undermine the importance of other factors such as gender, ethnicity or religion that workers are embedded in and bring on the shop-floor. In this chapter, I argue that the division of labour under neo-liberal policies has enabled permanent workers to capitalise on the skill they acquired over the years. But the relations that workers cultivated over time, primarily because of their seniority and also because of their origins in the same local villages surrounding the plant, enabled their skill to be more pronounced and to give them more control over the shop-floor.

The working conditions related by Halle (1984) at the automated chemical plant in New Jersey, where workers knew more than managers about how the work was to be done and were more familiar with the equipment and its quirks, are similar to that of EISCO workers, who are also proud to know more than the engineers about how to operate the machines. As Montgomery (1980) highlights, even Taylor himself was aware that the very thing that characterised workers was their collective knowledge of work. In speaking of workers at different trades, Taylor thus notes that "the workmen in each of these trades have had their knowledge handed down to them by word of mouth…. This mass of rule – of-thumb or traditional knowledge may be said to be the principle asset and possession of every tradesman" (Taylor, 1911 in Montgomery, 1980). Taylor was also speaking of trades' workers in the industrial world and not only of craft trades. The repeated breakdowns of the machinery at EISCO allowed permanent workers to master different shortcuts in operating practices that were easier than the instructions that management gave. Similar short cuts that workers used in the chemical plant, Halle (1984) argues, were often implicitly allowed by managers so long as the final product satisfied laboratory inspections. He suggests then that the lessons workers learned from accidents often became major technical discoveries and enabled them to introduce minor and unrecorded modifications that facilitated the work. Similarly, the breakdowns at EISCO expanded the skills that workers had developed earlier.

In Fordist companies, Carrier (2009) argues, the very design of the machinery and the spatial arrangement of production embodied and fostered the goals of management. He thus concludes that

"work discipline was built into the very factory itself" (Carrier, 2009, p. 206). The very arrangement of the factory space at EISCO, where the shop-floor was loaded with unused machinery, and loads of scrap piled everywhere, in addition to worn out technology still in use, enabled workers to have more lax work practices and greater control over their work. It also made the work much more dependent on social relations among workers, which at times rendered the work rather too emotionally investing or 'nerve wracking' as one worker put it. In a sense, Carrier (2009) finds the management techniques that developed with Fordism, or similar management systems inspired by it, as substituting artisans' patriarchal control of work during the prominence of crafts trade with managerial specifications and a spatial control of production in the modern factory. At EISCO, with the complete breakdown of machinery and management's inability to supervise the work, we thus see a circular motion, whereby work is moving from a rather spatially and temporally disciplined form- if this form ever existed- to a much more personalised practice, at times patriarchal, but largely dependent on workers' very emotional investment and their collective knowledge of work.

It would be helpful to then describe permanent workers at EISCO as more like artisans that belonged to the era of craft trades, who were not turned into simple providers of labour power under the modern factory. Mollona (2005a) explains similarly that at the hot department in Morris, the steelworks factory in Sheffield where he conducted fieldwork, workers perceive and organise the workplace as a blacksmith workshop. Thus he adds that "the knowledge of work in the hot department is embedded in human bodies and socially organised in subjective, fragmented ephemeral and centripetal spaces of actions" (Mollona, 2005a, p. 189). Following Keller and Keller (1996), Mollona argues that work is performed at the hot department "following non-linguistic and non-codified constellations of practical tasks associated with specific tools" (Mollona, 2005a, p. 188). The Kellers describe this as having four different elements: first, it relies on individual notions of relations between 'means' and 'ends' that are specific to every task; second, it is memorised and retrieved through physical movement and does not require thinking- similar to Bloch's (1998) argument about implicit knowledge. Third, when communicated through language it is related through traits of the material in terms of colours, shapes and metaphors. Finally, it is ephemeral because it is assembled when a given task presents itself. The importance of this tacit knowledge embedded in workers' skill and conveyed through indirect ways is unmistakable in its similarity to the situation of work at EISCO.

The relation between tacit knowledge, neo-liberalism and the public sector in Egypt is also highlighted in the work of Elyachar (2012). Elyachar argues that in both the craft workshops and the public sector bank where she conducted research *asrār al-mihnah* ('the secrets of the trade') were

recognised as a type of tacit knowledge that were central to market life. She suggests that "secrets of the trade usually refer to tacit ways of doing things that were historically transmitted in the course of apprenticeship in the "crafts guilds" (*tawaʾif al-ḥirafiyya*). They did not disappear when guilds were dissolved as legal entities" (Elyachar, 2012, p. 87). Following Chalcraft (2004, 2005), Elyachar highlights that the secrets of the trade in the crafts guilds were legally recognised as a form of intellectual property in Egypt throughout the nineteenth century. Similarly in her own work, her informants accepted that the secrets of the trade were the legitimate property of the workshop masters. Tacit knowledge in the public sector, Elyachar postulates, is a "collective inheritance, embodied in collective subjects. It remained so even if not recognised as a property right"(Elyachar, 2012, p. 90).

This tacit knowledge at EISCO was equally important for the production and labour processes. Although workers did not use the language of 'secrets of the trade', they did speak about their *khibra fi al-ʿamal* ('expertise at work') which they acquired over the years, and as the chapter three will demonstrate, traded with the younger generation of apprentices who were represented by the new fixed-term workers employed at the plant. Speaking of skill in terms of *khibra* as opposed to *mahāra,* which is the literal translation of skill, reflects the element of tacit knowledge similar to that of the secrets of the trade. It is a type of knowledge that is thus acquired through long term physical and emotional investment in work and depends on semiotic exercises. Although the tacit knowledge was not recognised as a property in legal terms, it was recognised in everyday terms as a property and a form of ownership that comes with permanent work. In speaking of property here, however, I follow the work of Hann (1998) who argues that the idea of property "must not be restricted to the formal legal codes, which play a major role in our society, but must be broadened to include the institutions and cultural codes within which such codes operate" (Hann, 1998, p. 7). Such property, in the tacit knowledge of the trade, thus allowed EISCO workers to have *de-facto* control on the shop-floor. This was, as Carrier (2009) argues in relation to work at Imperium described by Halle (1984), a furtive and restricted influence compared, for example, to the easily recognisable and extensive control that craft trades' artisans, described by other historians (see Rule 1987), held in work done by household weavers or those who took jobs that were put out by merchant capitalists. Nonetheless, Carrier argues that "workers exercised significant control because of their collective knowledge of how the plant worked… To a degree, workers could control production" (Carrier, 2009, pp. 208–209).

The collective knowledge of permanent workers was rather valorised within the plant with the deterioration of the machinery under neo-liberalism at EISCO. Their knowledge became the substitute for spending on renewing machinery and thus enabled production to flow on an everyday basis

despite the limited resources. Yet despite this tacit knowledge being collective in origins, Elyachar (2012) argues, because it was unmarked by legal traces of property and possession, it was thus used by different management theorists, practitioners, organisations and firms and transformed into a new source of profit by attempting to make the implicit explicit. She thus suggests that:

> "As long as the secrets of the trade were recognised as the property of the guild, the profits of tacit knowledge accrued to members of the guild. As secrets of the trade were written out of political economy and disappeared as a property right, tacit knowledge lost its status as a collective form of individual property. Tacit knowledge was individualised together with the community in the communities of practices (Duguid 2008)… Tacit knowledge was but a free resource awaiting appropriation of the firm. No property rights wed it to the community in which it had been spawned" (Elyachar, 2012, p. 88).

At EISCO this tacit knowledge was indeed being exploited, privatised and individualised by the plant, particularly when in 2007 the plant introduced fixed-term employment after a 16 year hiring freeze from 1991-2007, recruiting young semi-skilled workers. As chapter three demonstrates, this very transmission of skills became a means for management to extract profit from the older workers by making overall production cheaper and gradually replacing the skilled but powerful and expensive labour force with cheaper semi-skilled workers. This individualisation of tacit knowledge, through its transmission to apprentices willing to provide labour power and time, is documented in factories that have operated since the 19th century. Montgomery (1980) for example, shows how "it was technologically possible for the workers' autonomy to be used in individualistic ways, which might promote his own mobility and identify his interests with those of the owner. The ubiquitous practice of subcontracting encouraged this tendency"(Montgomery, 1980, p. 14). Montgomery relates how subcontracting practices among iron moulders in America- the practice was called the "Berkshire" system, which expanded rapidly after 1850 as individual moulders hired teams of helpers to assist them in production- undermined the output the mutualistic ethic that was characteristic of work then. He argues that such a system tended to fill the trades with trained, or semi-trained, workers who undercut wages and work standards. The spread of subcontracting practices thus encouraged many craftsmen to move beyond reliance on their functional autonomy in the firm and to use the next higher level of craft control, the enactment and enforcement of union work rules (Montgomery, 1980).

Although the privatisation of tacit knowledge was indeed taking place at EISCO, I argue that the focus on the community's loss of the 'legal' property of the tacit knowledge discounts other ways that workers managed to retain their property through cultural terms shared and understood by members

of the community. I consider permanent work contracts an alternative means by which the implicit knowledge of *khibra* became protected and maintained within the community, despite its partial individuation to young flexible workers in recent years. Permanent contracts not only sustained livelihoods but also gave a quasi-legal cover for tacit knowledge as property.

Permanent workers' position in the division of labour and their employment protection are not however the only sources of their power. Montgomery (1980, p. 14) explains that the "simple technological explanation for the control exercised by nineteenth century craftsmen will not suffice. Technical knowledge acquired on the job was embedded in a mutualistic ethical code, also acquired on the job, and together these attributes provided skilled workers with considerable autonomy at their work and powers of resistance to the wishes of their employers". The work relations that developed between workers by virtue of their working together on the same shop-floor for a period of between twenty and forty years, enabled workers to have growing control over the shop-floor. These are evident in workers' reference to the importance of *'ishra* ('intimate friendships that usually develop with time') relations to their sociality on the shop-floor. By eating together, spending night shifts together and working together for prolonged periods, workers develop intimate relations that extend beyond simple economic calculations on the production line. In fact *'ishra,* as later sections of this chapter will illustrate, is considered an extended form of kinship and a form of "relatedness" (Carsten, 2000) that workers valorise. Granovetter (1985) suggests similarly that economic relations between people in different firms are not alienated and impersonal, each rationally calculating how to use the other to the best advantage. Instead over the course of time their relations frequently "become overlaid with social content that carries strong expectations of trust and abstention from opportunism"(1985, p. 490). Workers even extend the relations of *'ishra* to machines as well, and explain how the machines are part of one's body, or that one is often married to two wives, one at home and the other was the machine (machine in Arabic- *makana*- is female). Labour, as such, is "indissolubly linked to the master's body but also to his machine" (Mollona, 2005a, p. 188). Machines, in the hot steel department studied by Mollona, like on at Sheet-and-Plate Rolling-Mill, are "not seen as external functional apparatus of production but as symbolic extensions of workers' bodies, metaphorical appendages of their sexuality, powerful technologies of enchantments and markets of social status" (Mollona, 2005a, p. 188). Relations of *'ishra* enable labour to flow easily on the shop-floor as a form of tacit knowledge that increases solidarity among workers.

In addition, because most workers at EISCO came from the villages around the plant, the emphasis on *baladiyyāt* (relations that develop between people who are from the same home village

or home town) was vital to channelling information on the shop-floor and expanding relations that gave workers more control. The fact that workers commuted on plant buses back and forth with other workers who were their *baladiyyāt* enabled information, favours and gossip to spread much faster in the plant and homogenised work relations. Among workers employed at the plant during the time of my research, information often flowed between *baladiyyāt*, who were largely the second generation of land-owning households near the plant. The actual kinship networks based on blood relations among permanent workers, although not as pronounced as between permanent and temporary fixed-term workers, further added to the belief that workers were the true owners of the plant. In fire stations in the London fire brigade prior to 1981, sociality and work control echoed descriptions of crafts workers where fireman at the station had a "strong common identity, they were self-recruited, they came from a narrow cultural and social background, they spend extended period of times in the company of each other and they were relatively free from external supervision" (Salaman, 1986 p. 45–54 in Carrier, 2009 p. 214). Workers in the London fire stations, like EISCO permanent workers, were embedded in social relations that made them form a somewhat cohesive body of autonomous skilled workers.

Hence, while emphasising the technological changes and the division of labour on the shop-floor, this chapter does not follow the tradition that sees these as the primary markers of the experience of work, rather following Mollona (2009b, p. xvi) I stress "the social-embeddedness of capitalist forms of livelihood". Instead of considering the world as converging to a problematic western model of industrial development it is important that ethnographic research highlights how "in many cases industrialisation in the south, diverges from the Western type of flexible capitalism. For instance, the top world steel corporations in India and Brazil are run like a family business rather than as a financial enterprises, with their 'old fashioned' conglomerate structures, protecting them from economic downturn"(2009b, p. xix). The relations of *'ishra* with machinery and with other human beings and the relations of kinship and *baladiyyāt* are important to the way work operated on the shop-floor of EISCO. They are particularly important, not just as a social and 'cultural' addition to the economic relations of workplaces, but because they are deeply entangled with the way people value relations in Egypt in general (Elyachar, 2005).

Fahlawa, as another type of tacit knowledge which is fostered in the plant captures best this embeddedness of social relations. *Fahlawa* "implies such qualities such as sharpness, cleverness and alertness" and "a kind of intelligence that springs from experience rather than formal education" (El Mesiri, 1978, p. 50; Elyachar, 2012, p. 86). It comes from "continuous interaction with all sorts of people, [through which] a person becomes knowledgeable about human behaviour" (El Mesiri, 1978,

p. 50; Elyachar, 2012, p. 86). Elyachar (2012) demonstrates how *fahlawa* functioned like the secrets of the trade as a form of tacit knowledge, in enabling the master of *fahlawa* to know with whom he is dealing and the best way to act in different situations, making information flow "from the coffee house, to the workshop, to the street" (Elyachar, 2012, p.68). *Fahlawa* then functions both in politics and in the marketplace as a means for a weaker group to advance against a stronger one or simply as a way to access knowledge that is not available otherwise. It is this type of knowledge particularly that with the deterioration of machinery on the shop-floor, and the increased tensions and fights that came with the personalisation of work, becomes increasingly valorised and of greater importance to work. Indeed, management itself tries to exploit these relations by increasingly allocating responsibilities to individual persons and blaming people for work faults rather than the machinery. The overall relations and skills among workers however, could withstand the tensions arising with the increased pressure of neo-liberalism and affirm workers' control on the shop-floor.

IV. Antiques on the Shop-floor

The work conditions on the Plate- and Sheet- Rolling Mill are not very different from the rest of the plant. The state of the equipment and machinery on the shop-floor seemed to largely dictate both production capacities as well as working relations. This became apparent very early on when I chatted to various people on the shop-floor to familiarise myself with the nature of work. While chatting to the quality control inspector of our mill about his roles and duties, the topic of work conditions came up. My interlocutor started off by explaining that he had to inspect the product *"bi-al-naẓar"* -"by the look [of it]" and only with a slight help of a milometer to measure the slab thickness. There was no infra-red equipment or other advanced tools to check for quality, he added, as is usually the case in other plants. A client, he continued, could ask for infra-red inspection but would have to pay an extra cost of 50 Egyptian pounds (5 GBP) per slab. He recounted this while clearly being proud of his skill that is valued at thousands of pounds. Although some of the work could be produced through the sharing of tacit knowledge about steel, for example by looking at the sheet or plate colour, its surface and texture, larger structural problems could not be treated by these make-shift alternatives. For example, only one side of the sheet or plate is usually inspected, not both sides, to see if there are any irregularities or product defects. This sometimes creates complications with clients who are dissatisfied with the quality of the final product and require further negotiations later on, as my interlocutor explained.

Following on, the quality control inspector commented on the condition of the plant in general saying: "*il maṣnaʿ fī dikay*"- "the plant is in decay" choosing, to my surprise and amusement, to use the very English word -'decay'- to describe the condition of the plant. My interlocutor then looked towards the trimming machine next to both of us and said: "look at this. It is even from before 1958. Nasser got this machinery", "*bas ʾiḥnā fiyn w Nasser fiyn*"- "but where are we and where is Nasser [today]," he added.[23] Above us, a sign which read DEMAG 1961, lay hanging on the overhead crane at the centre of the shop-floor, perhaps to remind us that the distant past my interlocutor was mentioning was neither so distant nor past. My interlocutor then continued saying "God knows if this is even the right date" and repeated to me what I had heard a few times earlier; that this was not even 1954 technology but machinery that originated from World War II times, which was sold to the Egyptian manufactures on second hand basis. He continued: "in contrast to other mills, like the coil mill, however, this one is *taʿbān* ('worn out')", explaining that no renovations took place here except on the 3-high rolling mill.[24] The coil rolling mill, which was recently modernised, is a symbol of aspiration for the rest of the mills and shops.[25]

The overall quality of the product in our mill, he highlighted, was thus quite low, leaving it only able to produce for "poor countries" like Yemen and Sudan or countries that were economically closer to Egypt like Jordan; while the coil mill was now exporting to Spain. The lack of investment in capital across the plant, and particularly on our mill, thus presented itself from early on in my research as one of the most important factors influencing labour and production processes.

The description of the quality control inspector left me wondering how the Plate- and Sheet-Rolling Mill was continuing to operate without making competitive profits and why it was not, for example, subjected to a similar fate as that of the steel re-bar mill next door, where production was completely halted[26]. The quality control inspector had the answer ready. "The thing is", he said, "we

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[23] The sentence means "we are times away from Nasser's era".

[24] *taʿbān* is also a way to describe somebody who is sick. As previous sections explain, machines were often spoken of in the language of persons.

[25] I conducted one month of research on the coil mill that my interlocutor mentions in order to compare it to this mill, since they share similar production process but differ in technological intensity. Having also spent a month and a half at the beginning of the research looking at the production process across the different mills, departments and workshops at the plant, I find the Plate- and Sheet-Mill more representative of the technology across the plant. The coil rolling mill is the exception rather than the rule. My interlocutor is right to point out that our mill in particular was largely worn out, but the coil mill would not have been representative of the conditions in the rest of the plant either.

[26] By mid 2009, management decided to shut-down the mill producing steel re-bars completely after being unable to survive against the monopoly of Ezz Steel Plant over the steel re-bar market in Egypt. The plant instead focused on

produce a lot of scrap. So we also sell a lot of this scrap to the plants surrounding us. Sometimes when the product is not of the right quality, it can be re-heated again at the blast furnace and re-produced. But most often, selling it as scrap is more profitable". Two production workers standing around eavesdropping joined the conversation to confirm what my interlocutor just said. Walking back towards the other end of the shop-floor, I realised that there could not be any other explanation for the amount of half-rolled scrap slabs that pile up every day along the shop-floor, throwing the workplace into disarray, other than that on some level this *was* ultimately the very produce of this mill.

On another occasion, Engineer Gehad, a maintenance engineer on our shop-floor, explained to me how management devised production policies to cope with the deteriorating machinery in the mill. For example, they adjusted the expected hourly production rates and decided to stop producing delicate products such as the very thin 8mm thick sheets, which require high pressures during rolling that eventually weaken the 3-High Rolling Mill. Thus, expected production rates were reduced from 25 slabs rolled per hour to 22 slabs per hour and from 18 to 15 slabs per hour on the respective re-heating furnaces.[27] Reducing the production rates would thus reduce the load on the machinery. But to push my interlocutor further, I asked if the alternative- investing in buying modern machinery- would entail dispensing with workers, and whether the best solution was not to invest in buying better quality spare parts. "No it was not a better solution" was his swift response. It was not necessary to buy top-end machinery to replace this one. Buying even second hand but modernised machinery, he found, would improve production without jeopardising jobs; it would mostly allow the mill to save on the cost of constant breakdowns, *aʿṭāl*, which take up important production time. Producing under these conditions seemed almost surreal and required adopting theatrical alternatives at times. For example, on our shop-floor there used to be a hydro blasting system, which existed in the past in order to remove the oxide scales forming on the top of the steel slab as it emerges from the re-heating

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producing semi-finished products for other rolling mills outside the plant or finished sheets, coils and sections which were not under the monopoly of Ezz Steel.

[27] While highlighting these changes, Engineer Gehad also reiterated how the machines dated back to World War II times. The reference to the World Wars by different interlocutors seemed intriguing, given that this is not a historical time reference that Egyptians use in every-day language to demarcate the early part of the 20th Century. However, KRUPP, one of the German companies which are said to have assisted the Demag company in establishing this mill and whose name was on different parts of machinery, was known in the early 20th Century for being the largest steel making and arms manufacturing company in Germany, which was based in Essen, until the end of World War II, after which it continued to manufacture mainly industrial machinery("Krupp AG (German company) -- Britannica Online Encyclopedia," n.d.). Perhaps KRUPP's social history did not have only an impact on the final product, but on the very language by which people demarcated time on the shop-floor.

furnace and is exposed to air before being rolled at the 3-high mill. This blasting system broke down a few years ago and was never repaired. Instead, it was replaced by palm chaff thrown by workers on the hot slab while it is being rolled. The primary responsibility of the temporary workers during the shift on the 3-High Rolling Mill became throwing chaff into the machine.[28] Water hoses were also used to replace water pumps that clear oxides off the machine. Another cold rolling mill also broke down on our shop-floor, was not restored and instead was left as production memorabilia. The entire plant seemed in fact at times to be a giant object of memorabilia. For engineer Gehad, thus, there was no alternative but replacing the 3-High Rolling Mill entirely. Confirming what earlier research about the 3-High Mills had revealed, he added: "*il thulāthiyya dih mish mawguda fī il-ʿaālam khalās dih ʾathariyya* "– "the 3-high rolling mill does not exist in the world anymore. It is an antique".

V. A Nerve Wracking Job

The sense of working with a machine, which anywhere else would be considered an antique, brought much amusement to both workers and engineers. It was a source of endless joking that animated the workday. The palm tree chaff particularly was always made fun of by workers, who found that they were living the very rural life on the very shop-floor. But the experience of the machine as a medium, which links workers' labour power to their wages, was in fact less amusing and rather frustrating. The everyday experience of production through an antique piece was primarily an experience of dealing with endless machine breakdowns. The breakdowns required coming up with ingenious ways to accommodate the limitation in technology, thus increasing both manual work but also resourceful and skilled work on the shop-floor. Machines' repeated breakdowns and resulting constant interruption of production were, put more accurately, the central main characteristic of production on this shop-floor.

According to the way the data is aggregated, there are five types of breakdown that can occur in the mill: breakdowns due to mechanical problems, electrical problems, production problems, external factors and pre-planned maintenance.[29] Needless to say, experiencing the breakdown and

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[28] See Figure 14 to 19 in appendices for illustrations of the make-shift alternatives used at the 3-High Rolling Mill.
[29] See Figure 20 in Appendices for an aggregation of the breakdowns over the past few years. Breakdowns due to mechanical and electrical faults are usually handled by maintenance workers, who are evaluated subject to their ability to reduce the breakdown repair time. Production breakdowns usually come from the 3-High Rolling Mill and the reheating furnace. Some production breakdowns occur, for example, from rolling steel at a cold temperature, putting

accounting for it are separated by a world of everyday politics. Figure 15 shows that the largest chunk of breakdown time comes from pre-planned maintenance. But pre-planning, for instance, is not always the right description for why work stops, sometimes for even a few days. The implicit agreement between workers and engineers is that when a maintenance breakdown looks like it is going to take a long while to fix, common practice is to document it in the reports as pre-planned maintenance, instead of accounting for it as a maintenance breakdown. This practice avoided penalising workers for taking too long to fix a breakdown, which managers recognised was prolonged because of the nature of the worn-out machinery. It also helped overall production down-time reports of the plant look more presentable to outside observers. In a sense, breakdowns required from both management and workers resourceful practices to negotiate the limitations of working with such old machinery.

But machine breakdown and production down time caused more intractable problems than the simple difficulty of accounting for them in reports. For example, on the 3–high mill, although longer breakdowns, which last for 10 or more minutes, are often accounted for, smaller breakdowns, that interrupt production nonetheless, but take less time to fix, are not reported in the daily production reports. So even when breakdowns are not accounted for, production is nonetheless constantly disrupted and requires workers to be continuously alert in order to handle the machine faults as quickly as possible. These repeated small interruptions to work are in a sense the very anti-thesis of a Fordist regime, exemplified by a repetitive work based on the separation of task execution from thinking and imagination. The small and big machine breakdowns always capitalised on the skills of workers to come up with ways to sort the breakdown quickly before it interrupts work or is penned in reports. Even pre-planned maintenances, which on the surface seem less exhausting to handle, require much skill and attention. Here is an instance: the rolling bars of the 3 High Mill are routinely replaced every few weeks as part of the pre-planned maintenance. The process, however, is never the same and most often an extra brick is needed here to support the gear, an extra handle needed there to attach the crane wire, or an old production worker needed to make sure the rolling bars were removed at the correct pace and so forth. The nature of work required a lot of emotional investment. When raw materials were not available causing production down time, engineers came up with new tasks, especially for production workers, such as cleaning the roubles in the underground areas

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the wrong pressures on the slab or in case of the furnace, reheating the wrong slab set. External circumstances are for instance, the lack of raw materials or lack of gas supply from the main blast furnace of the plant to the re-heating furnaces in the mill. Although they are distinct, identifying the breakdown source happens manually or individually; unlike at the coil mill through computerised alters. This makes breakdowns more contentious here.

underneath the machine, where the scale debris accumulated; a task that production workers particularly detested for turning them into 'cleaners' instead of 'workers'. Following a fight that erupted on the shop-floor when a breakdown occurred on the 3-High Rolling Mill, Sobhy, a maintenance worker, thus explained the general frustration workers experienced under these new working conditions by saying: "*Tūl ma al-makina shaghālla māfīsh mashākil hina. Al-Mashākil b-tibdāʾ ʾawil ma al-makana tuʾaf.* "So long as the machine is working, there are no problems here, problems start the minute the machine stops".

Breakdowns are thus a pervasive aspect of everyday production on the shop-floor and are the very experience of work with deteriorated machinery. The politics of who is responsible for fixing them, how to fix them and how to avoid them altogether largely organised the workplace and the working day. From minor problems, such as a slab that gets stuck and needs pushing with levers and crowbars, to a sheet that gets wrongly rolled, is considered scrap and needs lifting by the crane, to fighting over who has the priority to use the water hose, which is the make-shift replacement of the older hydro blasting system, to even simpler stops due to the lack of raw materials; the breakdowns are central to understanding work at EISCO. It required personal investments from workers in using their tacit knowledge to come up with make-shift alternatives to production as well as negotiating with managers on how to account and accommodate for them. As Mustafa Hakim, a control room operator, eloquently put it, this constant alertness and personal investment in the work resulting from breakdowns made working in this mill "*shughlāna mutʿiba l-il-ʾaʿsāb*" "a nerve wracking job".

VI. A Skilled Brick

I would have perhaps never understood what Mustafa Hakim meant by nerve wracking, if I had not experienced it myself. I had already spent some six months on the shop-floor by early October 2009, when the idea of assisting a little in production, beyond the teacher-like writing on the board that I was previously allocated, had become socially accepted without producing excessive looks, gossip and joking around the shop-floor. To encourage me, and perhaps also, to hide his discomfort at my contribution to the production process with exaggerated praise of my skill, ʿamm Waleed, one of the control room operators, kindly repeated "*Allah yinawwar*" whenever I assisted him in operating the machine in the control room. *Allah Yinawwar*, short for *Allah yinawwar ʿaliyk,* literally translates as "May God Enlighten (you)". It is an expression generally used in the workplace, and especially among

jobs that require skill, to show appreciation and admiration of another person's skill and to encourage them in their work. The deployment of *Allah Yinawwar,* expresses personal capacity for ingenuity. It becomes a way to collectively and explicitly recognise what is generally implicit. However, after the following incident, I doubted if I would be told *Allah Yinawwar* ever again and realised that my lack of skill was detrimental to the work process. I began believing I was utterly unskilled, even less so than 'a brick'.

During one of the shifts with production workers on the 3-High mill, I sat to the front of the control room next to *ʿamm* ʿAbd al-Fattah, who was the control room operator (or driver, as the men call it) of that shift. The control room was originally designed to accommodate two operators. But to save on labour expenses, the machinery was adjusted over time, so that it could be controlled by a single operator. The second operator had initially been responsible among other things, for the joystick that controlled the rollers connecting the furnace to the machine. In the cut-back variant, this was often simply replaced by a brick.[30] And by pushing the joystick to keep rolling the rollers on which the slab will slide, I had thus come to substitute the brick. I was confident of my ability to replace a brick.

As the light flashing from the furnace signalled a slab emerging, I pushed the joystick, the bars began rolling, and the slab came out and slid onto the rollers. However, the slab was thinner than the usual slab size used in this mill and thus got tilted on the way out. My attempts to push the joystick back and forth quickly to reverse the rolling direction of the rollers, as *ʿamm* ʿAbd al-Fattah, and other workers resting on the back bench of the control room were instructing me, did not succeed in tilting the slab back into its straight position. To deal with this, *ʿamm* ʿUmar, the shift supervisor and the rest of the shift workers suggested that the crane operator lifts the slab and re-adjust it in the right direction. But the sheaves of the crane did not attach to this slab, because they were an outmoded type that did not expand or become smaller automatically. The slab was smaller than the standard dimensions used by the sheaves of the crane and could not be lifted then. To get round that, the men came up with the idea of attaching a long piece of scrap steel to a giant magnet and then fastening it to the crane rope. The extra piece of steel was to function as a makeshift hammer that would give a blow to the titled steel slab on the rollers and re-adjust its position. Following some directions from production workers, the crane operator finally managed to re-adjust the slab on the bars and production continued.

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[30] See Figure 21 for illustration.

I was deeply embarrassed by my incompetence by then. The whole shop-floor was watching, as they often do when production is interrupted in order to first identify where the problem was coming from and then collectively come up with ways to go round it, which added more pressure on the person in the control room. Being embarrassed by what others thought about my incompetence, made me realise why workers, and especially senior workers like Riad, a shift head, paid attention to which workers were watching during production and spoke of 'being embarrassed' on the shop-floor when temporary workers produced mistakes that he was later blamed for. In some way, one was not just producing steel, but also producing skill (and thus respectability) which others were legitimising or denying by their approving or disapproving looks. I was also terrified because I risked producing a scrap piece that could put the shift I was working within in trouble. I grew visibly anxious and suggested to the rest of the workers resting in the control room that I maybe should not continue working with the operator. It seemed wiser to bring the brick back. But the men, some out of real concern and others out of sheer amusement at watching a woman screw up, comforted me by explaining this happened regularly with the smaller slabs and that I should not chicken out or else I would never get the courage to learn. I continued working next to ʿAbd al-Fattah, when the same incident occurred again with the next slab!

The whole shift went through the entire process again; with workers attempting to reverse the rollers from the control room, then more men congregating around the machine with levers and crowbars trying to think of ways to attach the slab to the crane. Meanwhile, ʿamm ʿUmar went down from the control room to give the rest of the shift a hand and came back up briefly to report that Engineer ʾIbrahim Hussein, the head of maintenance, was furious. He had not stopped shouting and was threatening to report production workers to Engineer Sherif, the head of the mill. "Engineer ʾIbrahim is saying", ʿUmar told us "that reversing the rollers with the joystick is bad for the machinery". Reversing the rollers when a slab was tilted a little was standard practice, which workers used all the time in order to offset the limitations of technology and engineers implicitly allowed. But to add to today's messy situation, another unrelated breakdown had occurred in one of the rollers accidently and they stopped working. This made Engineer ʾIbrahim more vocal about management's 'official' instructions about running the machine. ʿamm ʿUmar in turn wondered how on earth, with little technology available, production workers were expected to adjust the slab in the right direction if not by reversing the direction of the bars from the control room. He then said, mocking the engineer's remarks, *"dah illi ʿalā ʾadd mukhinā. Niʿmil ʾih? ʾiḥnā mukhinā sughayyar",* "this is our brains' capacity. What can we do? We have little brains". This generated heated joking remarks and gossip from the rest of the workers, who disapproved of being shouted at by the engineer and objected to being

considered stupid. ʿAbd al-Moneim contributed to the joking by saying that the problem was simply that Engineer ʾIbrahim Hussein was utterly stupid and did not understand anything in production work at all. In fact, he said, he had never seen anybody this stupid, always shouting and ill-tempered. Workers were very proud of their skills, especially under the new work conditions which made production almost a miracle that repeated itself every day. They considered their labour an extension of who they were and what they were able to conceive. Labour was increasingly personalised and individualised in the mill. The machines were thus linked to workers' bodies and used to mark their status on the shop-floor. An attack on one worker's skill was considered an attack on the collective knowledge they had gathered over the years, which was transmitted implicitly and symbolically.

By the time the whole incident was resolved I was trembling with fear, lest the workers of my shift be penalised for the production down-time. Although the problem was clearly caused by the inability of the mill to cope with a variety of slab sizes due to the limited technology available, it was experienced more as a threat on one's own personal capacities. ʿamm ʿUmar handled the situation generously, in turn, by joking about it and making fun of my anxiety. He jokingly told me that Engineer Sherif was saying no 'stranger' should drive the machine, before repeating more seriously what the others were saying about the machine not being equipped for the smaller-sized slabs. When half an hour later, the same incident occurred while ʿamm ʿAbd al-Moneim was operating the joystick instead of me and it took a further thirty minutes to fix, I began to relax and see how the increasing deterioration of the machinery with the spending cuts was transposing the structural problems of capital into the responsibility of workers. The repeated breakdowns and work interruptions due to the lack of investment in capital thus engendered fear, tension and constant accusations among people on the shop-floor. A wire cord gets cut while lifting some weights and threatens somebody's life, so the crane operator or Shaʿban's evil eye gets blamed for it; the machine stops, and ʿAlaa is blamed for rolling cold steel and in turn blames maintenance for not fixing the hydraulic problem; maintenance's failure to estimate how long fixing a breakdown will take leads to furnace workers reducing the temperature inside the furnace to the wrong level and then wasting even more time waiting to elevate the temperature again. Production at EISCO was terribly consuming and required a lot of personal investment. It does not, however, follow that work relations on the shop-floor were competitive or 'bad'. Rather, the difficult working conditions brought workers closer together despite the apparent tensions on the surface.

VII.   Machine Breakdowns and Workers' Solidarity

The work environment at the Plate- and Sheet- Rolling Mill was definitely tense, if only because the old technology and the repeated interruptions of production increased workers' personal responsibilities. However, this very technology and the work arrangement on the shop-floor enabled the negotiation of work obligations and work relations in a way that also created wider solidarities among workers. Perhaps nowhere was this more evident than in the accounting and reporting of *ʿuṭl* ('a breakdown').

Near the end of the morning shift, at about 1.30 p.m., production workers on the 3-high mill realised that they had not reached the expected production rates for the shift despite very few breakdowns that day. To handle the situation, *ʿamm* ʿAbd al-Moneim told *ʿamm* ʿUmar to add an extra hour of stops to the shift report. ʿUmar gave it a thought and responded that it was a bit late now because he had just given the mid-shift report to the operations control office. Both of them then became aware that I was around in the control room, so *ʿamm* ʿUmar turned towards me, smiled and told *ʿamm* ʿAbd al-Moneim jokingly, "What ʿAbd al-Fattah, you want us to cheat?" The men then decided to keep working until 1.50-1.55, instead of leaving at about 1.35-1.40, which is the *de-facto* end of shift times that workers had imposed. *ʿamm* ʿAbd al-Moneim could only make the suggestion to *ʿamm* ʿUmar to re-adjust the length of breakdowns because maintenance and production workers kept friendly relations and were able to negotiate breakdown times among them. "Making out" (Burawoy, 1979) on the shop-floor, was often done subtlety in implicit agreement among workers. Joking often helped normalise these negotiations and transgressions when they were explicit. "Just write what I tell you" one production worker thus told another maintenance worker another day, while jokingly putting on an air of authority as he told him on the phone to change what he had previously written in the shift report. These exchanges between both groups could only be observed in the hidden cracks, so to speak, by contrast with the overtly visible tensions and arguments on the shop-floor.

These friendly relations, especially among maintenance and production workers, were not unrelated to the nature of production in the mill and the regulations around it. In March 2007, a year prior to the start of my fieldwork at EISCO, the CEO had ordered the cancellation of the monthly bonus payments, which engineers had previously allocated to workers based on their productivity every month. This was justified as an attempt to limit the widespread corruption in the distribution of such bonuses, although the decision also manifested itself as a further means of cutting spending in the

plant. So while some workers welcomed the decision for its impact in limiting patronage networks, others found the loss of bonus pay de-motivating for work especially as meeting production targets or not did not now affect their pay packets. At any rate, the cancellation of bonuses eased negotiations between workers over productivity reports, because they no longer impacted on increased or reduced income. The evaluation of workers now affected only their end of year evaluation, which for most workers, having already reached the highest rank, and especially for shift supervisors and shift heads, made little difference in practice.

But other factors related to the nature of the production processes in the plant also facilitated these negotiations. For example, the type of steel being rolled (based on the density of steel in the slab) was important in determining daily production rates. The variations in the type of steel that was rolled during the same shift, thus lead to some laxity in calculating the production rates. It was in fact, the production engineer who once told me, to my astonishment, that "the rate is not important". The official production rates were 22 to 25 slabs/hour and 15 to 18 slabs/hour depending on which of the two re-heating furnaces on the shop-floor was being used. However, these rates were not strictly abided by when workers were rolling the harder and more dense steel slabs, which required a longer time to roll, or if the slab size was larger or thinner than the standard. The production engineer explained that in setting up the daily production plan, he thus tries to include a mix of slabs so workers could reach the expected production rate easily. The breakdown in the machinery enabled solidarities to build not only between workers but also at times between workers and middle management.

In addition, as mentioned earlier, because machines are subject to short breakdowns that are not accounted for in reports, it is hard to work with very precise production rates. Unlike at the semi-automated coil rolling mill, where the stops and breakdowns were calculated through a computerised system, the precise source, time and length estimation of breakdown on our shop-floor was done by human beings rather than computers. This therefore, left ample room to negotiate the length and nature of each breakdown among workers. No wonder then that when I was first allocated the task of writing the exact production per hour on the blackboard next to the 3-High Mill, workers were tense about it and constantly asked me whether I wanted to just get some rest away from the hot slab. I quickly learnt to pretend that I was confused about the exact numbers I wrote when the shift supervisors were adjusting the rates. The situation was also not so different for maintenance workers. Maintenance workers worked according to pre-estimated periods for handling different breakdowns. However, in many cases the spare parts and tools needed to fix certain breakdowns were not available. This allowed workers to negotiate the length of time for fixing a breakdown. Hence, precise production

rates and precise hours of maintenance were hard to estimate and there was always room for workers to negotiate them together.

The very stochastic nature of the production process at the mill and the relaxation of managerial control specifications with the spending cuts thus facilitated work negotiations. This is easily identified as a case of workers 'making out', but beyond this, the age and extent of worn-out machinery did not just allow workers some transgressions here and there, but also gave them *de-facto* control over the workload. The workers' ability to organise work did indeed make them consent to supplying labour power and time that generated a surplus for capital- although even the latter was not always a guarantee, since the plant had been operating at loss for years, until its debts were restructured by the state. But there was more than just consent going on. In a sense, with their skill, the ability to negotiate the workload and the security of their employment protecting them from being laid off and the maintenance of their skill, workers in the EISCO mill were more than just proletariat supplying labour power for capital, but actually shared a part of the capital invested in the mill. Even workers on more advanced shop-floors, such as the coil mill, still managed to negotiate work relations and subvert some production regulations despite the advanced technology. This is not unlike the situation explained by Shehata (2009) who, in comparing the shop-floors of a public company and that of a private company in Egypt, demonstrates workers' ability to make out even under the most advanced technology in the private sector. But the extent to which the machinery had actually deteriorated across the plant and the protection that the permanent employment at a 'strategic' plant like EISCO had guaranteed workers, increased their control further. This requires us to think of them in terms that are wider than just proletariat or even as a labour aristocracy. The property of their skill, which acted here as a type of property legally protected by long term employment, made permanent workers akin to a bourgeoisie.

VIII.   ʿ*Ishra*, *Baladiyyāt*, **Evil Eye and the Value of Relationality on the Shop-floor**

The solidarity among workers was further nurtured by other aspects related to the production process, work arrangements as well as the very 'cultural' background which workers brought to the shop-floor. Management, for example, had never specified a lunch break hour, thus workers were expected to cover for each other for rest times. This was usually negotiated and agreed upon internally among workers. In addition, workers negotiated among themselves different aspects of the division of labour. For example, at the 3-High Mill, three out four teams allowed the three young contract workers

in the shift to divide the work between them in a manner that guaranteed that each of them had one day doing the easier part of the work and two days on the more difficult elements. Some shifts often also managed to work faster than the set production rates during the early part of the day so they could slow down later or manage to leave the shop-floor a little earlier. However, this last option was more difficult to negotiate around the production engineer, who discouraged the practices because of its negative effect on the machinery. These internal work arrangements managed to make the work regime less rigid and to bring workers together by collectively negotiating work, often through a consensus-based process. This particular aspect of work at EISCO seemed one of the many reasons why young temporary workers were keen on working in this plant. For example, it made Gasser, a new temporary worker feel more *mirtāḥ* ('comfortable') at work here, because there was more room to negotiate work among colleagues, as opposed to his earlier experiences in the private sector, where work rules were rigid and entirely regulated by management.

But other types of relations, unrelated to the work process, also created solidarities among workers and helped them increase their control of the shop-floor. Workers often spoke of being *ʿishra*, the closest translation of which is friends/intimate- and even of developing *ʿishra* ('friendship/intimacy') with the machinery. *ʿishra* originates from the word *ʿashra*, which means number ten. From the same root, *ʿashir* in classical Arabic, refers to a man related to another by blood ties or friendship, whereas *Muʿāshara*, the verb from the same root, means to have sex. *ʿIshra* is often used in Egypt in relation to time. People thus speak of being *ʿishrit ʿumr*. *ʿumr* means both 'age' and 'lifetime'; thus, 'life-time friends'. *ʿishrit ʿumr* implies a kind of *ʿishra* that develops through sharing blood, sex or closeness to the heart, or, as is the case here, time. When I commented to Mr. Saleh, the head of industrial relations, that I found the banter between himself as a boss and the workers in the administration very unusual, he responded: "we were all hired here at the same time together in the 1980s and [he used the word *ʿāshirnā* the verb form of which is *ʿishra* - which means to come in close contact with each other]. Some are even a few years older than I. But we used to go on plant holidays together as unmarried single men and share one room and stuff. Now we are old and each has a family but we remain comfortable with each other. It is *ʿumr.*" *ʿumr* here is short for *ʿishrit ʿumr* and also means a lifetime. The concept of *ʿishra* suggests that workers were intimates, but this is a very particular type of intimacy, which when developed between people over time, becomes like the kind of relation where people share bodily substances by having *ʿishra* through blood and through sex. Workers thus explained how it was because *ʿishra* that they often shared their personal stories together and took advice from one another on how to run day to day affairs outside work. It was *ʿishra* too that made them know each other's characters easily, appreciate each other's quirks, not be offended by joking

and be able to negotiate work relations. Because of ʿishra some Christian and Muslim workers for example, transcend their religious differences and build lasting friendships which were comparatively more difficult to find elsewhere in Egypt in this period. A prominent example was the friendship between Riad, Mina and Nabil, three heads of shifts, who, at the time of my fieldwork, remembered being friends since they joined the shop-floor together, exactly thirty nine years earlier.

Workers also spoke of developing ʿishra with the machines. In a sense, the machine itself, with its grease and steams, sometimes became a part of the common substance shared between people over time. To explain how working in the plant for so long produced a special relation between man and machinery, a production worker said: *"il makan dah ʿishra. il makan guzʾ min il banī ʾadam"* -"These machines are ʿishra. The machines are part of the human beings". On our shop-floor, Hassan al-Masry, used to joke that he had two wives, one at home and the other one being the 3-High Mill.[31] More than just speaking of ʿishra with machinery, workers' bodily practices around the machine further reflect this relationship of ʿishra with machinery: when they were jumping up on the bars of the machine, to moving the slabs with crowbars and levers, to using one's own voice to direct the crane operator, to using hand signals to communicate production with the control room, to becoming entirely covered with grease and stains. This relation that developed with time enabled workers to become one group and to make their labour feel rather un-aliented.

Yet, the negotiation of breakdowns and work in general also depended on workers' characters and their personal relations. Maintenance and production workers for example, did not always agree to cover for each other. But those who broke the implicit code of work were largely ostracised from the community. This clarified the type of relations valued on the shop-floor. In one instance Shaʿban, perhaps in order to demonstrate his authority as a new head of production shift, had reported to upper management that during one of the night shifts maintenance workers had forgotten a slab by the shipping area, thus putting the mill at risk of an accident. Shaʿban had also been reporting the exact length of breakdowns without negotiating them with maintenance workers. According to Engineer Hamza, Shaʿban had created a lot of enemies among maintenance because *"ma- bi-yisāyis-sh"* "he does not negotiate".[32] A few weeks later, in return, maintenance workers complained to upper management that Shaʿban's production shift was reckless at work during the night shifts. The accusations reported to management resulted in the latter's direct involvement in production. This

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[31] *Al-thulāthia*, the name of the mill in Arabic, is feminine.
[32] The word *yisāyis*- to negotiate -comes from the root word, political, *siyāsa* meaning that he does not negotiate politically. The Arabic language thus makes direct links between everyday negotiations and everyday politics.

annoyed the rest of the workers. Engineer Bahaa and Engineer Sherif (the head of section and head of mill) spent the following weeks calling the control room operators at every interval to check on the work flow. This made workers irritated with Shaʿban, who had involved management in production in an attempt to advance his own interests and broke the workers' unwritten consensus that whatever happened in the night shift, stayed in the night shift. [33]

Two heads of shifts, Shaʿban and Masry, however remained inflexible in negotiating work and stricter regarding transgressions. They were both, though Masry more so than Shaʿban, infamous for their authoritarian way of running the shift and their big egos. Their managerial style generated much fury, gossip, jokes and mockery from workers. Shaʿban's evil eye was constantly brought up as a source of joking among his shift members and from other shifts in response to his attempts to distinguish himself from the rest of workers. Shaʿban had been infamous for selfish practices, and for his evil eye, even before becoming head of shift. For example, he had attempted to secure a closet in the changing room of permanent workers for his son, who had just been employed as a temporary worker on our shop-floor. He also invited his son to a small retirement party in the company of engineers, which only permanent workers and management attended, and when I offered workers a watch from London as a gift to put in the control room, Shaʿban took it home. Most of the breakdowns during Shaʿban's shift thus were attributed to his evil eye. Endless mocking stories circulated about how his evil eye caused electricity blackouts when he was invited to weddings, radio cassettes exploding after he praised them or even the loss of his colleague's bag of meat they bought together from the market. Masry on the other hand was repeatedly ridiculed, with Waleed, an older worker in his shift, once making fun of the way he gave orders here and there "as if he was regulating traffic" and "taking himself for a policeman."

I find these relations strikingly similar to those Elyachar (2005) describes in her ethnography of workshop-life in Cairo. Elyachar distinguishes exchanges taking place in the workshop "with Biznis (*bil-biznis*)"- that is the pursuit of short term gains and attempts to extract relations- and with exchange of favour "(*bil-mugāmla*)" or "(*bil-gadaʿana*)" from (*gadaʿ*) which includes attempts "to cultivate more

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[33] The night shifts were, on this shop-floor manned by workers only without the presence of engineers, who left with the normal administrative shift at 4.p.m. The absence of a shift engineer in this mill, in contrast to the coil mill for example, gave further power to workers to manage production beyond managerial interference.

relationships with neighbours and associates"(Elyachar, 2005, p. 138).[34] Elyachar turns to combine the work of (Munn, 1986) on the anthropology of value with that of Actor Network Theory to explain how "popular culture classes in Egypt in general, and workshop masters in particular, seek 'to create the value [they] regard as essential to [their] community viability'"(Munn, 1986, p. 3 in Elyachar, 2005 p.7). She traces the "relational value" which "is produced in workshop exchanges" as "it expresses the positive value attached to the creation, reproduction and extension of relationships in communities of Cairo" (Elyachar, 2005, p. 7). Elyachar's emphasis on this relational value stems from the fairly wide anthropological work that stresses the centrality of relationships to Egyptian culture and especially to urban popular culture and the large amount of time and effort that people spend in the creation, reproduction, and extension of relations (Elyachar, 2005).

People's investment in relations takes place even in workshops, i.e. places where interests are often pursued within some boundaries. Some of these boundaries are emphasised by Parry and Bloch (1989) where, short term exchanges are legitimised if they are balanced with the pursuit of long term exchanges which are "concerned with the reproduction of social and cosmic order"(Parry & Bloch, 1989, p. 2 in Elyachar, 2005, p. 7). This balance between short and long term exchanges is apparent in the distinction between exchanges "with Biznis (*bil-biznis*)"- and "(*bil-mugamla*)" or "(*bil-gada'ana*)". Instead of seeing the introduction of new economic practices instrumentally, Elyachar looks at how the values that people hold influence the meaning and outcome of these practices. For example, she highlights "the production of [the] positive [relational] value in tandem with the creation of negative value in workshop life, as embodied in the notion of evil eye" (Elyachar, 2005, p. 7). In her ethnography, the concept of the evil eye is often used to distinguish between short-term gains that focus on interests and long term social consciousness.

With the introduction of the neo-liberal concepts that encourage the pursuit of short term interests in Hirafyeen, the workshop area in Cairo where Elyachar conducted fieldwork, workshop masters often invoked the notion of evil eye. The maximisation of those interests while disregarding

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[34] *gadaʿ* according to *the Dictionary of Egyptian Arabic* is defined as: "one possessed of one or more of the following groups of characteristics: nobility of character and integrity; intelligence and application; manly toughness and courage" (Hinds and Badawi, 1987). Elyachar explains the character of a *gadaʿ* as "a man who does not swindle or cheat, isn't treacherous, and generally acts within the moral universe of the Egyptian popular masses. He has the qualities of decency and gallantry (*shahama*). To say that someone interacts with *gadaʿna* is to say that he watches out for others in his community" (Elyachar, 2005, pp. 137–138)

other long term relationships "makes the agent one with the evil eye" (Elyachar, 2005, p. 149). This understanding of the evil eye and bad omens is similarly interpreted by Pocock (1973) where they were "not to be feared between equals, nor between people whose status is clearly different, but were to be feared most, when those who should be equal were not" (Pocock, 1973, p. 44). In Al-Hirafeyeen "he who ignores the internalised eye of the conscious and pursues, short term individual interests without constraints, invites the attack of another eye, the evil eye. An attack of the evil eye can wipe out all the gains made by a master over a lifetime of work"(Elyachar, 2012, p. 149).

The emphasis on Shaʿban's evil eye on our shop-floor is thus in line with his attempts to pursue his self-interest at the expense of others. Shaʿban was ostracised for not expanding the relations of trust, the values of collectivity and the investment in the well-being of others. These practices were largely valued on the shop-floor and were practiced everyday through the collective negotiation of work. Relations among workers were thus not just a product of the division of labour or of the production process, but their power and ability to influence everyday politics comes from their entanglement with the values that people hold and their ability to reproduce the moral and cosmic logic that guides the community. These relations produced workers' solidarity and control of the shop-floor.

IX. Conclusion

The spending cuts at EISCO capitalised on what permanent workers took great pride in and valued the most, their skills and relations. The lack of investment in capital and the break-down of machinery did not lead to the de-skilling of the total workforce with neo-liberalism; rather it increased the need for skill in everyday operations. It also made work increasingly personalised and dependent on relations on the shop-floor. The structural problems of capital were transposed onto workers who, by thinking of their labour as an extension of the machinery, were then blamed for the machine breakdowns. Although workers' skills gave them increasing control of the shop-floor, they also obfuscated the larger structural problems attached to the lack of spending on machine renewals.

On an everyday basis, permanent workers experienced their labour as inalienable. I use alienation here with reference to Carrier's description that "people who have little control over a thing or activity are likely to be more alienated from it than are people with more control; people obliged to co-operate with strangers are likely to be more alienated from their activities than are people who interact with family and friends" (Carrier, 2009, p. 198). I argued in this chapter that the labour of permanent

workers was inalienable due to the protection of permanent contracts- which, unlike permanent contracts in other public sector enterprises in Egypt, are less threatened by layoffs and phasing out because of the EISCO's strategic interest to the regime. This protection gave their skill more weight. Permanent contracts thus act as a form of legal protection for what can be called the 'property of skill'. In a sense, permanent contracts at EISCO guaranteed permanent workers the security of livelihoods and upheld the collective property of their skill. This, I have suggested, is similar to the legal protection of artisans' skills at the times of craft trades.

At EISCO, the employment protection that the state granted permanent workers increased their control of the shop-floor rather than their vulnerability to market trends. Their work trajectories are better understood through the prism of artisans who work on a 'modern' industrial shop-floor. I end the chapter here with a reminder from Mollona (2009a, p.9) that looking at the varied forms of labour that developed with capitalism highlight how "historical perspective of the working class consciousness did not follow a linear trajectory of progressive alienation and objectification of the proletariat, but underwent a circular involution leading to the paradoxical return of indentured labour, patriarchal capitalism and the cottage industry in the age of postmodernity". "the 'proletarian' and the 'artisans'" as Mollona eloquently puts it, "are two concurrent forms of class relations which reflect the uneven form of capitalist development." In the same way, the coming chapters will demonstrate how the worlds of both types of labour, the precariat and the stable, exist at EISCO and its vicinity, and interact with one another in a way that profits the capitalist state.

Chapter Two: Subverting Shop-floor Hierarchies: Workers, Engineers and Joking Relationships

I.   Introduction

It is 1.20 p.m., almost half an hour before the end of the morning shift. The 3-High Rolling Mill just broke down. What timing! Workers are often restless around this time as they wrap up work and prepare to leave the shop-floor. The rollers linking the furnace to the mill have stopped rolling. A siren goes off from the control room to alert the maintenance workers and the crane operator of the breakdown. Hassan, the crane operator, puts down his mobile phone-cum-music player and travels with his crane along the shop-floor. He has made a makeshift hammer by tying the wire rope hanging from the crane to the sheaves attached to the steel slab. He lands a few blows on the sides of the bars. Hassan is assisted by the production shift members, who time his blows with a series of 'Heyyy Hooo's' called from below. But the rolls don't roll.

Shaʿban, who has just been made head of shift, takes charge and attempts to assert his authority. He jumps on the rolling bars and, with a proper hammer, knocks on the sides of the bars, while struggling to stand still. His antics generate hissing and jeering on the shop-floor. I count fifteen men standing around the rolling mill to watch the theatrics staged by Shaʿban. A young fixed-term temporary worker tells me quietly that everybody is pretending they are interested only because engineer Sherif, the head of the shop-floor, and engineer Bahaa, the head of this and two other shop-floors, are standing by the machine. "Of course had they not been here, it would be Hussein, ʿAbd al-Rahman and I [the three young temporary workers in this production shift] only here" he adds. I nod and smile in approval; these are shop-floor classics I have come to learn over time. Round the machine, the mood is lively: cigarettes, chitchat, jokes and gossip are circulating among the mob of people watching in suspense.

Engineer Sherif and Engineer Bahaa are both standing with shop-floor engineers and a few senior workers towards the front. The rest of the workers and I congregate behind them. Two workers standing next to me are gossiping about Engineer Hamza, the production engineer: "Dah mā-b-yfhamshi ayy ḥāga w baʿd mā mishy Tawfik maḥadish fihum fāhim ḥāga" - ("He doesn't understand

anything and ever since Tawfik left, none of them understand anything").[35] *Karim, a temporary worker standing on the other side, shouts hesitatingly to the engineers: "'il makana miḥtāga titzaffar" - "the machine needs to be greased" he says. Everybody at the back cracks up laughing. Karim means that management ought to sacrifice an animal and distribute the meat, as used to be practiced in the past following every annual repair. This was said to bring good omen. The practice has been stopped recently, thus creating another opportunity for workers to joke that it was the management's stinginess that was responsible for the bad luck that stopped the machine. A few minutes later Engineer Mohy, the production engineer of the heating furnace, tells me in a half-joking manner: "I know what the problem is. It's Shaʿban's [evil] eye". Karim overhears him and smiles slyly. The promotion of Shaʿban to head of shift had resulted in an increasing number of jokes by those who thought him unfit for the position. Another worker, unhappy with how long fixing this breakdown was dragging on and how the engineers, who left work at 4 pm, were keeping the morning shift workers from catching the 2 p.m buses home, shouts from the back: "We'll leave at 4 p.m. like the engineers or what? Give us over-time pay then". Another burst of laughs ensues.*

This chapter considers the changes in the hierarchical relationship between the shop-floor managers (i.e. the engineers) and workers in recent years. Engineers and workers have, for most of the plant's history, been bound by a hierarchical relationship that is akin to what Radcliffe-Brown describes as *a 'relationship of avoidance',* which is characterised by extreme respect. For Radcliffe-Brown, an avoidance relation is a contractual one based on the two parties being "conjoined by a definite common interest in reference to which each of them accepts specific obligations" (Radcliffe-Brown, 1952, p. 103). The continuation of production could in many ways be considered a common interest, leading both workers and engineers to accept, willingly or unwillingly, their separate roles and obligations over the years. In this chapter, however, I argue that the reforms that took place under Mubarak's authoritarian regime made it hard for both workers and engineers to continue seeing production as a common interest. In fact, the very configuration of the new conditions of work and life have pushed the majority of engineers – from the small managers to the heads of mills – to resist the neo-liberal and police state project and to become complicit with workers in plotting against the spending cuts and the tyranny of the regime, which was embodied by the CEO. Engineers thus lost authority in the plant, which allowed workers to feel able to attack, through teasing, mockery and open gossip, the hierarchy that the engineers represented. The engineers, in turn, began to take the disrespect with less offence and often retaliated with more joking, teasing and mockery. I suggest that

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[35] Tawfik is a foreman, who had just retired.

the joking on the shop-floor was not simply an attempt by workers to resist the power of engineers in a "weapons of the weak" (Scott, 1985) manner, or to let off some steam. Rather, these practices contributed to the subversion, albeit slowly and gradually, of the work hierarchy at EISCO. The uncertain relationship of white collar employees, such as engineers, to capital and labour in public enterprises and the way in which "neo-liberalism as exception" (Ong, 2006) was spatialised under Mubarak's authoritarian regime, have opened the possibility for the industrial hierarchy to be subverted at EISCO in recent years.

I propose here that we need to understand how neo-liberal reforms are translated by white collar employees in industrial settings. Questions about neo-liberalism have often been framed in terms of the dialectics of fragmentation, creolisation and de-territorialisation of the working class, or their collective action and resistance to management. At the heart of this dialectic lies an unquestioned assumption that management and workers always represent capital and labour. However, Parkin (2006) argues that the division between capital and labour is not as straightforward in public enterprises as it is in capitalist enterprises. He suggests that the white collar, or, more broadly, 'intermediate' groups, are often assumed to be of the dominant class because they identify with capital and with management over labour. In the public sector, however, he adds the chain of command stretches upwards and out of sight into the very body of the state. In addition, white collar workers are not free to transfer their services and skills to other employers and are tied to the state as a monopoly employer. Parkin (2006) thus contends that the division between manual and non-manual work as the basis of class struggle in the public sector is not totally justified. Although both groups remain socially differentiated, with different life chances and opportunities, they are not interrelated simply as exploiter and exploited.

The complex relation between management and labour is also echoed in research on state-owned enterprises in the Middle East. Waterbury (1991; 1993) for example, argues against the notion of a 'state bourgeoisie' or a 'petty bourgeoisie in the public sector' whose interests lie in the appropriation of private gains while serving in the public sector through their relations with the private sector. Rather, he finds that the history of public enterprises in Egypt, although it reflects individual corruption, is not a case of systematic use of the public sector for private gains. In contrast, he finds public-private relations to have been less antagonistic at times. The work of Longuenesse (1979) on the other hand, distinguishes between a petty bourgeoisie in the state sector made up of top managers, and the rest of the white collar workforce whom she considers part of "an intermedium

stratum" which encompasses white collar workers in the public sector, engineers, teachers, administrators in the industrial and agriculture sector and employees of the tertiary sector, such as banks, etc. The position of these strata in the social relations of production (selling their labour power without owning the means of production) "brings them close to the working class, from whom they are set apart by non-productive roles, while their way of life, their aspirations and ideology relates them to the petty bourgeoisie" (Longuenesse, 1979, p. 3). These strata are hence "a product of capitalist development, extension of the market, the multiplication of banks, the development of schooling, and the intensified involvement of government in social and economic life" (Longuenesse, 1979, p. 3). Similarly Nellis (1980) sees them as "a chameleon group able to shift its policy position quickly from proletariat to bourgeois" (Nellis, 1980, in Waterbury, 199 p. 9). The uncertain position of engineers in relation to capital and labour raises a number of questions, for example: how and why they take different sides at different times? And how do engineers position themselves within the technologies of neo-liberalism and the logics of an authoritarian state?

In studying Mubarak's regime, Soliman (2011) argues that authoritarian states that embark on neo-liberal reforms have to engage in two contradictory projects. They must cut public expenditure, as stipulated by the neo-liberal doctrine, yet they must also increase spending to uphold the stability of the regime, which maintains power not only by offering welfare provisions and various entitlements to citizens, but also by increasing expenditure on policing and state media to control public opinion and contain rebellion. These two contradictory trajectories that must be followed by authoritarian states undertaking neo-liberal reforms thus end up creating unexpected outcomes and a range of possibilities.[36] Ong (2006, p.17) suggests that the two logics are kept in parallel in repressive regimes through the very spatialisation of the neo-liberal technologies, hence creating "neo-liberal exceptions" in the midst of "exceptions to neo-liberalism". She points to Specialized Economic Zones in China as a way the regime has kept both its repressive and centralised character and yet enabled the technologies of neo-liberalism to engage subjects into becoming self-enterprising citizens. Ong's argument however has been criticised for the generalisation of 'states of expectations' in places

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[36] This is not to say that non-authoritarian regimes, which embark on neo-liberal programs, are not subject to the same contradiction. Neo-liberalism, regardless in authoritarian states or not, does not lead to the retrenchment of the state from regulating the market, rather it reconfigures where and how it invests its resources, and whose interests in protects (Mitchell, 2002; Gledhill, 2004; Kingfisher and Marovsky 2008). Neo-liberal capitalism is thus based primarily on 'accumulation by dispossession' through the concentration of wealth and power in the hands of the few (Harvey, 2003). In addition, the state, and not only authoritarian states, is by its very definition one that monopolises and legitimates the use of force and violence (Weber, 1991). In authoritarian regimes however, these tendencies are more articulate and perhaps more intense.

where law was never abolished and for the assumption that the zones are wholly realised on the ground (Stivens, 2007; Castree, 2007). In addition, ethnographic research reveals that economic zones are unexceptional and tend to have structural continuities with what is often referred to as the informal economy (Cross, 2010).

While all the above critiques hold out, Ong's thesis nonetheless, illuminates why the spatialisation of neo-liberal and authoritarian policies and discourses should be a central focus for researchers. The case of SEZ's should take into account the contradictions and, perhaps moral crises, that occur where the spatialisation of governing practices occur in a way that the "exceptions to neo-liberalism" exist in the same spatiotemporal sphere as "neo-liberal exceptions".[37] In this chapter I look at what happens when the logics of authoritarianism and neo-liberalism exist in the same space, such as state-owned enterprises in Egypt. I look at the contradiction between on the one hand, cutting expenditures on public plants as part of the classic doctrine of the post-Washington consensus, and on the other hand, the virtual non-existence of discourses and practices around efficiency, meritocracy nor a concern over the losses EISCO was systematically making. Enterprises like EISCO with their political importance to the state, both as symbol of the nation and because of the regime's fear of their ability to destabilise it, reflect what Kingfisher and Marovsky (2008) have called neoliberalism's "limits" manifested in its "contradictions, fractures, partialities and contingencies and both its dialectics with and determination by other social forces" (2008, p. 119). The main question is then how do engineers take sides between capital and labour given the contradictions and partialities of governing practices? And when do they shift allegiances?

To understand how engineers shift allegiances in complex situations like this, one has to go back to the shop-floor and examine the details of their forms of communication and behaviours that take place on an everyday basis. Here, I start by looking at the fabric of everyday sociality on the shop-floor: both the joking, teasing and gossip, and the formalities and manners of respect. I suggest, following Bakthin and Voloshinov in *Marxism and the Philosophy of Language* (Volosinov, 1986), that forms of utterances and their semiotic manifestations, accompanied by mimicking, gesturing and acting out – or what Bakthin and Voloshinov call *signs* – are "the most sensitive index of social

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[37] I am grateful to Professor Stephan Feuchtwang at the LSE, who, in a comment on an earlier version of this chapter that was presented at the LSE, pointed out that Ong's work has been critiqued for the reliance on Agamben's thesis 'on the state of exception' (Agamben, 2005), which assumes the total suspension of the law, but which is not very accurate for the case of China. The critique however, does not hold for Egypt, he astutely pointed out, partly because Egypt has been under Emergency Law, which suspended normal legal proceedings, since 1967, except for an 18-month break in 1980/81, until it was suspended following the 2011 Revolution, on the 31st of May 2012.

changes" (Morris, 1995, p. 61) because they register "delicate, transitory, and momentary phases of social change" (Morris, 1995, p. 61); the changes in the making that have not yet taken a definite shape or developed into an ideological system. This, they argue, has to do with the very nature of the sign that "reflects and *refracts* another reality" (Morris, 1995, p. 61) (emphasis mine). Put simply, a sign is not merely a symbolic representation of reality, but is constitutive of it. Bakhtin and Voloshinov thus argue that a sign is "*a two sided-act*" which is determined "equally by *whose* word it is and for whom it is meant" (Morris, 1995, p. 55). This is where the agency of the speaker and the interlocutor exists; it is in the ability to appropriate "the two sided-act" and make it one's own. Looking at these utterances and their semiotic manifestations allows us to see how the subjects are actively engaged in creating new realities while being equally affected by these realities. In what follows, I analyse joking and avoidance on the shop-floor as *signs.*

Although joking, teasing and mockery between workers and engineers were becoming common, they were especially prevalent among permanent workers on the shop-floor. They took place mainly between maintenance and production workers or shift heads and shift workers, all of whom have similar status and often cooperate together, but have different roles. These groups of workers were in fact bound by what Radcliffe-Brown had described as a "joking relationship", in which it is permitted, and in some instances required, to tease or make fun of the other, who in turn is required to take no offence (Radcliffe-Brown 1952, p.90). Joking relations are thus a "peculiar combination of friendliness and antagonism" (Radcliffe-Brown, 1952, p. 91). The interaction between engineers and workers in contrast, was largely formal. Workers were required to show respect to engineers, by standing up when they came, addressing them only by their title *muhandis* ('engineer'), or even the more formal *bashmuhandis*, or alternatively *rayyis* ('president'). Engineers in turn addressed workers by their names, sometimes using titles such as *Sheikh*, if a man has a beard as an expression of piety, ʿ*amm* ('uncle') if he was an older man, or *ḥagg* if had performed the hajj. Engineers did not share food with workers except on rare occasions, and were careful never to put their hands to the work of the latter. The interrelationship of workers and engineers is, in a sense, akin to an avoidance relationship. This was eloquently expressed by one worker who said: "a worker is a worker and an engineer is an engineer".

Today, however, this formality is slowly being contested and engineers are gradually showing signs of a burgeoning joking relationship with workers, similar to that which exists among the workers themselves. As David Graeber suggests in *Possibilities* (2007), "joking relations tend to be mutual, an

exchange of abuse emphasising an equality of status"; in contrast, "avoidance is generally hierarchical, with one party inferior and obliged to pay respect" (Graeber, 2007, p. 21). He thus attempts to posit a "rudimentary theory of manners and a rudimentary theory of hierarchy" (Graeber, 2007, p. 14). Joking bodies, Graeber argues, are essentially made "out of a common substance" and "stuff flowing in and out" (Graeber, 2007, p. 17). In contrast, he posits, in avoidance relations "the physical body is itself negated and the person translated into some higher or more abstract level" (Graeber, 2007, p. 17). Unlike the joking body, the body in avoidance is thus, he suggests, "constructed of something different. It is constructed out of property" (Graeber, 2007, p. 21). Graeber follows Radcliffe- Brown in showing how, in avoidance, people do not share food, do not address each other by personal names, do not speak of sex, excretion and personal quirks, i.e. things that evoke the very person and his body. In this chapter I link the manners of avoidance and joking to the development of education as a type of property that allowed engineers to distinguish themselves from workers. I trace the implication of the gradual degradation of education as property over the years on everyday sociality. I compare this to other ways, property or social entitlements were distributed on the shop-floor and were affected by economic and political transformations in the plant.

The power and status of engineers on the shop-floor I suggest have been gradually undermined by joking practices, the arrangement of time-space in the mill, the combination of spatialised neo-liberal and police state policies and the changes to the type of 'property' at the heart of the avoidance relation between workers and engineers. The first section in this chapter looks at joking relationships among permanent workers, the second traces how these joking relationships are extending to managers, the third revaluates managers' position in the relations of production and the final section looks at engineers' loss of status given the developments of state politics in Egypt.

II. Friendship and Joking Relationships among Workers

In previous chapters, I have demonstrated that although at face value the fights between maintenance and production represent an archetypical case of neo-liberal fragmentation of the labour force, workers do in fact cooperate together more than appearances would suggest; as seen in Sha'ban's shift for instance, where him and maintenance adjusted the overall numbers they were reporting to management. I argued that this could be read also as a typical "making out" (Michael Burawoy, 1979) practice, which in Burawoy's analysis helps manufacture consent on the shop-floor

and blinds workers to capitalist exploitation. Although I have suggested that the latter is partially true, chapter one has demonstrated that permanent workers' skills and relations give them control over the work, which makes them more than just proletariat selling their labour power. In this chapter, I take the analysis a step further and explore the changing meanings and relations of work that inform the work experience. The antagonism followed by mutual aid that was described in chapter one- mainly between permanent production and maintenance workers- seems close to what Radcliffe-Brown called a joking relationship, which is based on a pretence of hostility within true friendship and is between people who are equal.

The joking, for example when maintenance workers teasingly called production workers "*wardiyya naḥs*" ("an ill-omened shift"), helps fosters these friendly yet antagonistic relationships. Moreover, Graeber argues that the body in the domain of joking is made of a "common substance" (Graeber, 2007, p. 21) and "bodies are apiece with the world" (Graeber, 2007, p. 21). The concept of ʿ*ishra* that workers find important to their sociality, suggests that workers were intimates. This is a very particular type of intimacy, which develops between people over time and becomes like the kind of relation where people share bodily substances by having ʿ*ishra* through blood and through sex. What the concept of ʿ*ishra* conveys is the element of equality and solidarity that tie primarily permanent workers together. Sharing the very medium of the machine, sharing of food, or simply sharing time allows them to deepen their ʿ*ishra* and friendships. Workers' interactions were then often structured as joking relationships. Such relationships and the emphasis on equality they invoke were gradually being appropriated in the workers-engineers relations.

Joking relationships are also customary among heads of shifts and the rest of the shift workers-most of both groups are permanent workers. Workers' mocking of Shaʿban, the head of shift in the anecdote at the beginning of the chapter, was in response to his attempt to assert superiority. That the joking involved accusations of bringing 'bad omen' or focusing on Shaʿban's evil eye is quite telling. As explained in chapter one, accusations of evil eye and bad omen usually arise in conditions when those who ought to be equal are not (Pocock, 1973) and when people appropriate personal gains at the expense of their community (Elyachar, 2005). Also, the joking around Shaʿban, and generally on the shop-floor, was very particular; it invoked the true idiosyncratic quirks of the person and was meant to humiliate and embarrass. It often invoked the body itself as highlighted in Radcliffe-Brown's understanding of joking relationships. So, both the structure and content of the joking relationships constituted an attack on personal attempts to distinguish oneself from others, or in the case of

Shaʿban, an attack on the patronising way he ran the shift. They are, in some respect, also an attack on the hierarchal arrangement of the overall work structure, especially when it makes some the bosses of others without any material or technical differences to distinguish them. I see this attack on the hierarchy among workers stressing the value they accord to their equality and solidarity.

During the shift mentioned in chapter one, when the steel slab kept getting tilted by ʿAbd al-Moneim and myself, ʿUmar, the shift supervisor, said jokingly "it's all [happening] because people from Shubak are stupid". ʿAbd al-Moneim was from the village of Shubak near the plant and so was a visitor from maintenance who sat with us in the control room. "Half of this mill is from shubak, I'll get them to come beat you" replied the visitor to ʿUmar. A few minutes later, ʿAbd al-Moneim complained that he was tired of driving (being the main operator) all day. ʿUmar then replied by overplaying the authoritarian tone: "well Riad [the head of shift] is sick and I have a stomach ache, I can't drive because I keep going to the toilet. And then they hired you here as a driver. So you drive all day". He then turned to the young workers of the shift who were also in the control room and said "if any of you had shown me some potential, I would have taught you to drive but you are all worthless". While doing this, he hit Gasser, a young worker, with a stick. Then ʿUmar took over from ʿAbd al-Fattah, drove a little himself and boasted about how, compared to ʿAbd al-Moneim(and probably me), he did not get any slab stuck or tilted. The rest of us quickly told him that he drove well because of using the brick instead of his hands. A burst of laughter ensued when we finally all agreed that the brick was the most skilled of all of us. ʿAbd al-Moneim then interrupted our laughter by saying that he was at the end the best driver, even better than ʿUmar, because he produced no scrap and rolled all the slabs. The joking that ʿUmar initiated stressed his superiority and ridiculed their lack of skills or character. By exaggerating the basic element of their relation - namely that he was of a better status because he was the shift supervisor - ʿUmar ridiculed this very hierarchy. In turn, the responses from the maintenance worker, from the young workers and from Abd al-Fattah, all challenged the hierarchy of their relationship with ʿUmar. Invoking personal attributes, such as stupidity, using beating and hitting, or simply making reference to excretion and bodily fluids shows workers at peace with their surrounding and each other. The banter with ʿUmar reflects both the pretence of antagonism and yet the true friendship that are central to joking relationships.

The exchanges between ʿUmar and his shift speak to Graeber's (2007) argument that joking relationships are different from jokes; for example, the ones described by Douglas (1968), which Graeber argues are more about humour and are not structured in a way that reflects the divergent

and yet convergent relations nor the bodies that are sharing a common substance which characterise joking relationships.[38] Like Graeber (2007), De Neve (2005) is also interested in how joking relationships are not only about humour but contribute to the production of meaning and agency in the workplace.[39] De Neve describes how sociality in a handloom workshop in Tamilnadu is largely organised around friendships and solidarities, which are fostered through joking that transgresses castes but is largely gendered - often taking place between female and male workers and mostly initiated by the female workers against the male workers. The ambiguity in the analysis of these practices, De Neve suggests, lay in that joking does not manage to subvert dominant hierarchal and patriarchal values, yet is meaningful because women are able to create transgressive and critical spaces on the shop-floor. Inspired by De Neve, I analyse how joking and avoidance practices structure the workplace and give meaning to the relations between engineers and workers.

III. Workers and Engineers: Joking and Avoidance

When Engineer Sherif, the head of mill, arrived on the shop-floor one afternoon, his manner was a mixture of genuine chastisement of the workers and a more joking mocking tone, in which he told them they were useless and were doing ʿakk ('a slang way to say making a mess'). ʿamm Mina, the head of production shift, then turned to the young temporary workers and said in a joking manner, "just do anything, move around and pretend that you are doing any work". The shift became animated as *Sheikh* Fathi, the shift supervisor, and the young men went underground to clear the oxides and moved frantically to pretend they were working. But ʿAbd al-Rahman, who was known to be lazy, was not doing his share. Fathi addressed the engineer from the underground area, in a clear break of formal manners in addressing somebody of higher status by shouting from beneath them. He told the engineer jokingly "please take ʿAbd al-Rahman away from this shift, he keeps saying I am related to

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[38] Mary Douglas' interest in jokes, on the other hand, derives from a focus on "the subjective character of the categories in which the experience is structured"(Douglas, 1968, p. 362). Instead of the focus on the form of joking like Radcliffe-Brown (1952), Douglas reverts to the literature by Bergson (1950) and Freud (1916) on jokes, which see jokes respectively as the triumph of intuition and of spontaneity over the mechanical and encrusted, or as the triumph of lack of control over control (Douglas, 1968). She comes up with a hypothesis that "a joke is seen and allowed when it offers a symbolic pattern of a social patterning occurring at the same time" and as such argues that "all jokes are expressive of the social situations in which they occur" (Douglas, 1968, p. 366).

[39] De Neve (2005) writes in response to literature highlighting, like Douglas' (1968), the subjective experience of the joking, teasing and flirting in ethnographies of the workplace which focus on the 'cultural' interpretations of flirting and the indeterminacy and the hesitancy of it in a given space (Osella and Osella, 1998), or the use of joking from the lens of power and resistance (Fernandes, 1997; Yelvington, 1996). De Neve, (2005) however takes more seriously the ambiguity and ambivalence that lies at the level of production of meaning and is interested in "what joking does and can do, and can mean" (De Neve, 2005, p. 119)

Sherif and I can't make him work". The very use of the word 'Sherif', as opposed to *bashmuhandis* Sherif or *rayis* in addressing the engineer was a challenge to the established codes of behaviour with somebody of higher status, especially the highest authority in the mill. Engineer Sherif replied jokingly: "he's not my relative and even if he were, I would do nothing for him". He then told Fathi: "I told you to train him as a driver on the machine to get rid of him." Fathi then responded again teasingly "I can't get him to work and you want me to train him as a driver!"

In another instance, a conversation about politics in Egypt encouraged one of the workers to tell Engineer Sherif mockingly: "Why don't you run for President? You'd make a great President", covertly making reference to the Engineer's lousy managerial style. Engineer Sherif, who was aware of the attempts to ridicule him, then responded jokingly: "I am clearly unable to run the shop-floor, how will I be able to run an entire country?!" The joking with engineers often ridiculed the fact that they had more status and control, while slyly alluded to their loss of competence, resourcefulness or authority. By addressing the engineer directly while jokingly referring to his corrupt practices in hiring people, workers were effectively bringing down the engineer in the eyes of everybody witnessing the exchange. Although usually workers were the 'attackers' and engineers the 'respondents' in this relationship, the engineers sometimes also initiated these friendly attacks, for instance by calling the work produced ʿ*akk*, contributing their own stories about Shaʿban's eye and beating workers jokingly- such as when Engineer Sherif teased a worker with a stick in his office[40].

The relationship between workers and engineers has not, however, been completely altered from an avoidance relationship into a joking one, nor was the hierarchy entirely subverted. Workers still have to address engineers by their titles and engineers still refrain from working with their hands. There is some resistance, especially from engineers, to these new, more informal kinds of interactions. For instance, Engineer ʾIbrahim Hussein's stern reply to an attempted friendly mocking by some workers was: "*il hizār hizār w-il gad gad*" – "there is a time for humour and a time for serious work". However, the minute Engineer ʾIbrahim Hussein turned his back, another worker made fun of the engineer's air of seriousness by sticking his tong out at Engineer ʾIbrahim! These interactions suggest that the hierarchal relationship, which workers argue existed in the past between workers and engineers, is being challenged and gradually subverted. The practices of joking, teasing and mocking delicately capture these incremental changes. Put differently, one could say that the joking utterances

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[40] Engineers and workers also made references to their ʿishra over the years, though not as often as workers did among themselves.

and gimmicks "reflect and refract" (Bakhtin and Volosinov, 1986 in Morris 1995, p.61) the structural position of engineers in the labour hierarchy.

To illustrate the changes in the engineers' positionality, I revert to Graeber's (2007) argument that avoidance relations are made essentially out of property. Graeber, like most jurists and social scientists, sees property as a bundle of rights that enable exclusions to take place. Educational qualifications at EISCO, especially engineering degrees, which are considered from *kuliyyāt al-qimma* ('the top universities'), have been such important markers of distinction that one could almost speak of them as a type of property. I was particularly struck during my research by the way people often introduced their children to me by saying: "I have engineering, literature and commerce" instead of introducing them by names, ages, gender or even hobbies. How marriage arrangements were highly organised around on one's qualifications was also quite intriguing. Valuing educational qualifications was so prevalent at EISCO. Engineers' educational qualifications were, I argue, central to the avoidance relation between engineers and workers. The changing social status of engineering education enabled workers to transgress and subvert the hierarchy of avoidance through joking with and teasing engineers.

In thinking of educational credentials as a form of property, I follow the analytical tradition that defines property not only as what people *own* but primarily the relations of exclusions among people that form society itself (Sabean, 1991). I am equally influenced by Parkin (1979) who is interested in how credentialism enables social exclusion between groups. Parkin stresses that "it is necessary to regard credentialism as a form of social closure comparable in its importance for class formation to the institution of property" (1979, p. 58). His claim: "both entail the use of exclusionary rules that confer benefits and privileges on the few through denying access to the many, rules that are enshrined by law and upheld by the coercive authority of the state" (Parkin, 1979, p. 58). Weber's (1964) classical work then links how educational qualifications establish social classes. Weber looks at the different forms of classes shared by people who occupy the same class status based on property, acquisitions, or what he calls social classes. Among the different groups constituting the latter, Weber includes "the intelligentsia without independent property and the persons whose social position is dependent primarily on the technical training, such as engineers, commercial and other officials and civil servants" in addition to "the classes occupying a privileged position through property or education" (Weber, 1964, p. 427).

Thus, inspired by Weber's focus on social classes, Parkin (1979) examines the development of professionalism in relation to credentialism. Parkin argues that the development of credentialism is a way for professionals to limit the supply side of labour by raising the standard level of entry, thus restricting the positions to and monopolising them by owners of educational certificates. The greater dependence on credentials as a precondition of professional candidature is often justified by the growing complexity of the tasks to be performed and thus the need for stricter tests to assess individual capacities. This justification however, is deceitful. The seminal study by Berg *Education and Jobs: The great training robbery* (1973) leads Parkin to argue that Berg "was able to turn up no evidence to show that variations in the level of formal education were matched by variations in the quality of work performance". Berg's conclusion, in line with Weber's, is that credentials are accorded their present importance largely because they simplify and legitimate the exclusionary process (Parkin, 1979).

Credentials are hence often given on the basis of tests that measure qualities and attributes related to one's class rather than practical skills and capacities that may not easily be transferred through the family line. Bourdieu and Passeron in *The Inheritors* (1979) have reached a similar conclusion when they examined educational qualifications from the perspective of private property that the French bourgeoisie restricts to its offspring, often through tests and examinations that depend highly on one's upbringing and class background. Bourdieu and Passeron analyse how these examinations create educational inequalities that are often less visible, for example, in "the relegation of the working class or lower-middle-class students to certain disciplines, or the fact that they fall behind and mark time in their progress through school" (Bourdieu & Passeron, 1979, p. 2).[41] Accordingly, Parkin (1979) finds that those who stretch property ownership to include both cultural capital and productive capital, like Berg (1973) and Bourdieu and Passeron (1979), refer to education as property. Berg, for example asserts that "educational credentials have become the new property in America" (Berg, 1973, p. 183). While the theoretical discussion on the relation between cultural and productive capital to conceptions of property is beyond the scope of this thesis, and deserves further research in the future, these considerations highlight the centrality of educational credentials to hierarchal and class positions, in a way that makes it function 'almost like a property'.

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[41] Credentialism as an occupational closure functions through those in possession of a specific qualification, who are then considered fit to provide the relevant skills and services for the remaining of their professional lives. Parkin concludes that occupational closure based on qualifications, unlike for example closure by skilled workers against exploitation by an employer - which is not necessarily aimed at reducing the material opportunities of other members of the labour force - is based on establishing "monopoly over specific forms of knowledge and practice, in order to win legal protection from lay interference"- and is thus most importantly a "conflict concealed from the lay public"(Parkin, 1979, p. 57).

The managerial hierarchy at EISCO mills was organised around educational credentials. While engineers standardly hold five year engineering degrees from universities, workers hold at most a three year diploma from a technical secondary school. Engineers were therefore made managers on the assumption that they had the technical education needed to run the plant. I suggest that the educational qualifications informing the managerial hierarchy became such salient means of exclusion between both groups at EISCO because- unlike other ethnographic locales, for example Sanchez (2011) where managers are from different regions, or in the case of De Neve (2005), where managers are largely males and workers largely females- at EISCO there was general homogeneity among workers and engineers. This cultural homogeneity reduces the claims that people can use to distinguish themselves and exclude others. Workers and engineers at EISCO shared largely the same ethnicity, gender, age, and importantly, family background. In fact four engineers on our shop-floor had been workers themselves, and studied further while at EISCO to become engineers.[42] Engineer Hamza and Engineer Wael, like many in the plant were both sons of workers. This was prevalent across the plant, where an engineer would actually have a brother, father or uncle who is a worker. Likewise in Syria the 'intermedium strata' often had origins in either the 'peasantry' or 'petty bourgeoisie', which brought them closer to workers, especially those who share the same peasant background (Longuenesse 1979). This was also common at EISCO, where, for instance, an influential head of mill I interviewed had originally been the son of a peasant who had received a small piece of land through the land reforms initiated by Nasser. Strikingly, engineers at EISCO also did not earn more than workers. In fact, senior workers sometimes earned double an engineer's salary. So, the social and economic background of engineers has given them very few claims for distinction between them and workers. In this context, educational qualifications became a major source of differentiation at EISCO.

Until 1984 in Egypt, the state was responsible for hiring all graduates, thus creating what Moore termed "a price list for school certificates and diplomas" (Moore, 1980, p. 40), where "the particular certificates entitled a person to a certain salary and grade in government service irrespective of the nature of the work or his ability to perform the tasks assigned" (Harbinson and Ibrahim, 1958 p. 106 in Moore, 1980 p. 40). Education enabled engineers to secure a permanent contract at EISCO and promised the possibility of moving upward in the managerial strata to join the vanguard group of engineers that had run the state for a good part of Egypt's history. Engineer Sherif,

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[42] The possibility that workers further their studies in order to become engineers came to a halt in the plant in the early 1990's.

our head of mill, remembers receiving three different *taklīf* ('job appointments from the state') at the time of his graduation; two were in the prestigious petroleum and steel sectors and he had the chance to try both before choosing the steel plant. But even when the practice of state allocation of jobs was abolished, engineering education continued being attractive to students (Moore, 1980). In fact, Moore (1980) found that although many engineers in Egypt were of working class origins, the majority were originally from bourgeois families, and engineering became a preferred occupation of the upper classes, especially when it appeared as a way of securing top positions in the regime. This trend, Moore argues, has helped sustain the attraction of engineering universities among Egyptians, even when they were producing more graduates than were needed for industrialisation. Until today then, people in Egypt distinguish between *kuliyyāt al-qimma* ('the top schools') - which encompass engineering, medicine, pharmacy and computer science, and demand the highest results in placement exams - and the rest of universities, which a worker eloquently described as *kuliyyāt al-shaʿb* ('the peoples' schools').

Moore warned, however, that with the increase of engineering graduates over the years "the downward mobile may become as numerous as those who are fortunate enough to keep their families' bourgeois status" (Moore, 1980, p. 15). I read Nasser's policies as offering a brief opportunity for 'education as property' to be expanded to a wider pool than the bourgeois group it used to be restricted to until 1952. But as graduates increased and jobs dwindled, the distinction between those who are able to go to top schools and those who went to 'the people's schools' prevailed again. Engineers of poorer background aspiring to become bourgeois thus could not capitalise on their education as a form of property. The dreams and aspirations that this education had fostered became inaccessible. Most notably, transmitting the property of their education to future generations turned to be almost impossible.

In the coil rolling mill, out of the five engineers I surveyed, all had children in universities, but only two had made it into the 'top universities' while the other three had children in '*kuliyyāt al-shaʿab*'. Interestingly, the earlier two were also land-owning engineers, one of whom indicated clearly selling the land to finance his children's education. On the Plate- and Sheet- Rolling Mill, of the seven engineers I surveyed, only three had children of university age; one of whom only had a son that graduated from military school, which is considered of equal prestige like the top universities. Again, this engineer also indicated that he owned land. The other two engineers sent their children to

kuliyyāt' al-shaʿab, even when one of them was land-owning.[43] The final engineer had an unemployed son. This anecdotal evidence illustrates how engineers of poorer background struggled to continue transmitting their property to their children. Other types of property, for example, workers' skills, which were protected by permanent contracts, became more relevant and important for distinctions on the shop-floor. Most importantly, for the engineers at EISCO, education had lost its status for two reasons: the first had to do with the change of technology in the plant and the second, to be discussed in the next section, due to the inability of qualifications to guarantee upward mobility in the plant.

ʿamm Mina, a head of shift, once said to me "back in the old days, engineers used to give us training in their specialisation as well as general training". He then added "there is nobody to give us training today because we understand the machinery better than the engineers". With the plant's old and worn-out machinery, knowledge acquired through technical engineering education was no longer needed to run the shop-floor, rather a very sophisticated type of skill that develops through working manually on makeshift alternatives over the years was more in demand. In other words, we are seeing almost the reverse of the static, import-substituted technology that helped consolidate engineers' status in the 1950's-1970's to a rapidly changing one that requires ingenuity in production. This rapidly changing technological climate is not due to advances in technological innovations but rather emerges with the deterioration of the old machinery, which does not allow engineers to consolidate their status in relation to a body of knowledge they have mastered. Engineers have thus lost the tangible claims for their managerial positions. In contrast, most workers had worked for twenty to forty years on the same shop-floor. They had mastered skills or expertise (*'khibra'*) that they took great pride in and which allowed them to control most technical matters related to work.

Engineers and workers were also becoming social equals given the time they had spent at the plant over the years. Having worked at EISCO for sometimes up to fourty years, some workers were more senior than the engineers, and earned more than the letter (sometimes even more than general managers). In addition, workers recalled how they feared the "engineers of the past". A couple had exaggerated stories of how, in order to make a complaint, they had to write it down on a piece of paper and give it to the engineers. The logic used by *Sheikh* Islam, a foreman in the furnace area, to explain why he couldn't boss workers any longer, could be extended to engineers and workers. *Sheikh*

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[43] As for workers, out of the 30 workers surveyed on the coil mill, 3 had children, who made it to the top universities and, similarly, of the 74 workers surveyed on Plate- and Sheet- Rolling Mill only 3 had children who were at the top universities. This testifies, even if anecdotally, to the difficulty of those who are not already of bourgeois background to acquire credentials, which enable class exclusions.

Islam, put it most eloquently when he said *"zamān Raʾīs el wardiya kān līh kilma, lakin lamā el kawānīn itghayarit sāwit kuluh bibaʿduh"*- "Back in those days, the head of shift had a say in things. But when the laws changed, it made everybody equal." This however, he added, also happened "automatically". "I was the boss of a man who was 18 years old and used to tell me the story of his life in order for me to approve his holiday. Now he is 45 and knows me and knows the work, so it is hard for me to be his boss". The hierarchy that *Sheikh* Islam spoke of was related to age and generation. The halt of recruitment of new employees between 1991 and 2007, in order to reduce EISCO's labour force, meant that most workers and engineers were in the same age bracket, between 40 to 60 years old- apart from the temporary group that had just joined EISCO in 2007. Age and generational struggles, or more accurately their absence, in the case of EISCO, have contributed to the way material gains and managerial hierarchies are experienced and expressed on the shop-floor. At EISCO this brought engineers and workers together.

Furthermore, with the decentralisation of management following the change to the public enterprises laws in 1991, engineers became directly involved in managing everyday affairs such as authorising vacations, holidays and sick leave in addition to the strictly technical aspects of the plant. These tasks were previously undertaken by the central administration in the plant with the help of senior workers, particularly the foremen. With the cancellation of bonus pay in 2008 to cut spending, none of the senior workers wanted to be a foreman. Engineers had to plead workers to take up the position. The position entailed more responsibility without an increase in pay; in fact the 'promotion' entailed a reduction in pay because a worker would forego the incentive pay for rotating shifts to join the managerial group, who worked on a normal day shift. This left engineers with more responsibilities to run the everyday affairs of the shop-floor but with nobody to mediate their relations when confrontations occurred. Engineer Hamza told me that since Tawfik, the foreman, retired, he had found managing the work very difficult. When conflicts occurred he said, *"Kunt baṣadarluhum Tawfik"* - ("I used to put Tawfik to the forefront to face them"). Now, he says, he has to face them himself.

The cancellation of the monthly bonus pay, which engineers used to allocate to workers based on their production every month, left engineers with no alternative but to administer pay cuts to manage workers. The latter inevitably viewed these unfavourably as an attempt to cut off their livelihood. Most often workers referred to this as a cut to a worker's *rizq* ('sustenance given by God'), and that of his children, and thus exerted a moral pressure on engineers to not administer these pay

cuts, because "nobody should cut out what God has given man". The engineers themselves were very reluctant to make these pay cuts. Engineer 'Ibrahim, for example, explained how the entire shop-floor would come begging him not to give the pay cut and everybody from the *baladiyyāt* ('those who share same neighbourhood or come from the same home village') of that worker would plead him, or send a union representative who is also their *baladiyyāt* to ask the engineer to change his position. Engineer Hamza, who was more sympathetic to a general theory about *rizq*, gave in to the pressure.

Similarly some ethnographers of Muslim countries have suggested that Islamic discourses and practices of piety shape industrial regimes. Rudnyckyj (2005) argues that problems of development in a public Indonesian steel factory, which were cast in the past in technical and infrastructural knowledge terms, are today "increasingly being posed as an ethical problem and religious reform as its solution" (Rudnyckyj, 2005, p. 4). Rudnyckyj highlights the use of the proverb, *al ʿamal ʿibāda, (*'work is worship'), which is recurrently employed in Egypt too. He explains that the proverb is increasingly used by managers and workers in the plant in order to link efficiency to economic development by introducing a combination of entrepreneurial and religious arguments. In contrast, in Turkey, Sugur and Nicholas (2004) show that the same expression was used by workers in car factories, who were well aware of their managers' secular orientation and their reluctance to allocate prayer breaks to workers. Shehata (2009) however, cites prayer breaks as one of the ways workers *made out* (Burawoy, 1979) by attempting to accrue more time to rest before praying. Shehata compares the increased religiosity on the shop-floor to white collars' secular and rational approaches to religion, and suggests that the proliferation in the use of religion by blue collar workers was often in reaction to managers' attitudes. But local and regional religious beliefs structure workers' lives beyond the dichotomy of resistance and consent to managers. They should therefore be analysed in the context of other aspects of workers' lives, as I have attempted to demonstrate with the use of the idiom of *rizq*, before jumping to the conclusion that they represent either workers' resistance or consent to working.

The loss of authority of the engineers was also expressed in a nuanced manner with a gendered distinction. Workers often said the managers were *ḍuʿāf* ('weak') – a term that plays on the reference made to someone who is sexual impotent , as *'da'if* ('weak in singular form'); thus expressing their sense of superiority to engineers, whom they viewed as not masculine enough, in a gendered language. The very fact that engineers never worked with their hands, perhaps as a sign of avoidance relation, was often alluded to slyly as a sign of engineers' resemblance to women. This

became more overtly stated when I was on the shop-floor, as it was always me (a female) and the engineers who were standing there without putting their hands to work.

Left with no pay cuts, no bonus pay and nobody to mediate their relations with workers, engineers at EISCO had lost more managerial powers on the shop-floor in the face of the workers' growing power. The increase in workers' power, it should be noted, was also related to the nature of their contracts in the plant. Not only were these contracts permanent, making it difficult to dismiss workers, but the contracts were almost made to bequeath to workers' children. In addition, they also enabled the protection of workers' skill and their growing control over the shop-floor. In many protests by public employees in Egypt today, giving priority to workers' children in employment comes up as one of the formal protest demands. A similar trend is observed by (Parry, n.d.) at the Bihlai Steel Plant in India. He finds contracts to be exchangeable on the market and argues that they are also developing into a quasi-property right. While the coming chapters discuss how contracts developed into a form a property among EISCO permanent workers, it is enough to highlight here how permanent contracts are important to the balance of power on the shop-floor between workers and engineers.

IV. *Mushkilat ʾidāra* ('A Management Problem')

In a formal interview with Engineer Sherif, he told me how the CEO was utterly tyrannical. His argument was that work "depended on the man, not on targets". Engineer Sherif said the CEO only listened to and took advice from people who were his allies- but who were not necessarily competent-, that he sent around spies to check on work in different mills, allowed no room for disagreements, and depended largely on *ḥilūl ʾirtigāliya* ('improvised solutions') in work. From what I could see this was largely true. Engineer Sherif had reached the conclusion that *"il mushkila mushkilet ʾidāra"* ("the problem was a management problem"). This very same sentence was then repeated when Engineer Sherif accused ʿAlaa, a permanent production worker, of rolling the steel with the wrong cold temperature. ʿAlaa was furious, and added that the problem was that *"il ʾidāra bitsmaʿ"* - "management here listens". He believed management listened to people's claims instead of checking the facts.

In most conversations both workers and engineers related the problem of management to some unidentifiable *hummā* ('they'), or sometimes *huwa* ('he'). With time I realised that neither I nor my

interlocutors really knew who these "he" and "they" really meant. The very vague category 'management', which people in management themselves seemed to blame, was the closest approximation to this tyrannical and unidentifiable force, representative perhaps of the state or even Mubarak himself, that the CEO seemed to personify at times.

The arrogant and authoritarian character of the CEO, who ran the plant from 2005-2010, indeed contributed to the repression and tightening of control on workers. But it was not only the CEO's temperament that made everybody in the plant turn against him and the vague category of *hummā* that he represented. By leaving many managerial positions deliberately empty and re-hiring retired managers that he personally favoured as 'consultants', the CEO had restricted the promotions of engineers to higher ranks. By doing so, he could no longer sustain the engineers' and overall management's support for the neo-liberal project. The engineers favoured by the CEO were also given additional perks and pay by heading useless 'committees' he had created to run side projects. So, in 2009, seven out of nine positions of heads of mills were left un-filled and were instead occupied by consultants. Across the plant, many general management positions were left similarly unallocated. This seemed the single most tyrannical aspect of Egyptian employment strategy: when people were struggling for jobs at the bottom, the ones at the top kept theirs indefinitely. No wonder then that most post January 25th 2011 labour protests Egypt-wide demand to rid plants of consultants.

The promotion to managerial positions was decided upon by the CEO, the board members and the Administrative Supervisory Authority in Cairo. In addition, the CEO of the plant was required to become the head of Mubarak's National Democratic Party in al-Tibbin before he could assume his responsibilities. This meant that many who deserved upgrades did not get them simply because they were not in the good books of the CEO, and others for political or personal reasons. Even worse, some engineers, like engineer Wael on the shop-floor, were left on probation for two years. Their incentive pay was then reduced because one's incentive pay decreases as the person moves from a shop-floor position to an office one. Until the new post was ratified, one did not get the pay rise appropriate for the new job. Many thus suffered prolonged pay cuts with the 'promotions'.

In some respect, the engineers' failure to fulfil their expectations of upward social mobility, which was a major reason for getting an engineering education and becoming employed at EISCO, largely contributed to turning engineers against the CEO. To use Weberian terms, in terms of class status, engineers were not fulfilling one important element; that is they did not achieve "subjective

satisfaction". Rather they were "frustrated" as individuals and as a group (Weber, 1964, p. 424). If workers' ultimate goal in joining the plant was attaining permanent employment, engineers' ultimate goal was not only the permanent employment, but the aspiration to become a bourgeois by holding top-ranking positions in the state owned plant. This however was not materialising under the current configuration of power at EISCO.

This power structure rendered engineers and managers largely sympathetic to their supervisees' demands. The head of the industrial relations department, for example, seemed to invent new ways to compensate workers and still work under the CEO's austerity regulations; for example, by giving his supervisees their overtime pay under the guise of other items because the CEO had stopped approving overtime, or by inventing new titles for office workers to compensate them for their overwork when the CEO refused to hire new ones. On the shop-floor, the head of sections told a worker to whom the CEO had administered a pay cut that he knew it was not the workers' fault, but that there was little he could do to prevent the CEO's arbitrary decision. Instead, he blamed Sha'ban for involving 'outsiders' in the situation when the engineers of the mill were prepared to cover up for it internally. The solidarities in the plant between engineers and workers were, in a sense, an attempt to cope with both pervasive neo-liberal cuts and an overbearing repressive police state that not only dispossessed workers, as the standard literature on neoliberalism has it, but also disfranchised large categories of management. One day, Engineer Jospeh said, rather prophetically: "I'll tell you one single thing for your research. The biggest problem here is bad management. In the whole country, management does not exist…" and then, pointing his finger towards the ceiling, he continued, "and it needs to be blown, from the very top up there!"

V. Conclusion

This chapter started with utterances and behaviours that communicate delicate social changes at EISCO. These gestures, viewed as *signs* (Bakhtin and Volishinov, 1986 in Morris, 1995) help us see the changing work relations, especially the hierarchical relations between shop-floor managers and workers during the neo-liberal years. I have shown that while engineers and workers were, for most of the plant's history, bound by a hierarchical relationship of avoidance and of extreme respect, today this is largely contested by practices of joking, mockery, teasing and open gossip, and is in fact slowly being subverted.

I have proposed that this change is related to the trajectory of neo-liberal developments in Egypt's public industry under an authoritarian regime. EISCO was not an 'exception to neoliberalism' in the midst of 'neo-liberal exceptions'. Rather, both logics were at work within the same time-space. State politics and logics are therefore central to the configurations of capitalism, which suggests that we need to go beyond the thesis of 'neo-liberalism as exception' to learn more how neo-liberal ideologies are upheld in authoritarian contexts.

At EISCO, I have argued, engineers lost their power and prestige and became complicit with workers in plotting against the spending cuts and the tyranny of the state represented by the plant's CEO. How the logics of both neo-liberalism and the state were appropriated and how people experienced time and space on the shop-floor were largely behind these new structures of power. In public enterprises, management in particular is a difficult category to situate in terms of social class; this chapter suggests an exploration into how and why it shifts sides. Starting from a thesis on joking, avoidance and property, I have shown that at EISCO, an engineering education that once enabled its possessors to position themselves at the top of a social hierarchy, and was thus, in effect, a form of property relation, has lost status due to the deterioration of technology and the limits to engineers' social mobility imposed by Mubarak's repressive state. Engineering education was thus in turn contested a source of distinction. I have also suggested that permanent contracts are developing into something similar to a property right. A rigorous exploration into forms of property that exist and compete on the shop-floor helps us explore, from the bottom up, how the class struggle at EISCO is informed by different, and perhaps, competing claims to property that lie in the control of work through skills, tacit knowledge and education.

Chapter Three: "We Are Like Father and Son": Kinship on the Shop-floor

I. Introduction

It is Saturday morning, the start of the working week at EISCO. At 7:10 a.m. sharp the company bus picks me up from round the corner of my house. The journey to the plant takes an hour and twenty five minutes exactly. The journey's rituals, which will be repeated with precision over the year I spent inside EISCO, now begin. I get on the fourteen seater bus making sure to remember to balance the number of times this week I use the more secular salutation, ṣabāḥ al-khayr ('good morning'), which the two Christian engineers at the back of the bus always reply to whole-heartedly, and the more commonly used salutation these days, originating from the Islamic tradition, al-salām ʿalykum ('peace be upon you'). My eyes quickly search for the seat allocated to me next to the female physician. Unlike workers' buses, which are lively with conversations, chitchat and men reciting from the Quran, management's buses are more quiet and reserved[44]. It takes ten more minutes for our collective morning nap to begin.

At 8:35, we arrive at EISCO. We wake up one by one as the bus driver makes a brief tour of the plant dropping each person at their respective department. My eyes open to the plant's streets animated with workers from the night shift walking towards bus stops and others from the morning shift getting off buses and advancing towards the mills and production shops. The mood is relaxed. The crowds, mostly of men and carrying their meal, or what is left of it in a plastic bag, stroll, greet each other and chat. Some men are wearing their galābiyya, which are long traditional dresses worn by men especially in rural areas, and others wear shirts and pants. The diversity reflects EISCO's location between rural and urban landscapes. But it is really the distinction between the younger generation of workers and the older one that captures my attention right away, again and again. The striking contrast between dark hair and skinny bodies, and grey hair and large bellies is un-mistakable. The presence of islands of blue jeans and colourful red, pink, and purple T-shirts in the midst of the more classic kaki and pastel coloured strapped wide shirts, regular pants and galābiyyas is captivating, especially at a plant like EISCO, which comes across as old and neglected, if not haunted.

Inaugurated by President Gamal Abdul Nasser in 1958 and later expanded with the help of Soviet expertise in the 1970's, EISCO's construction maintains a very distinct socialist realist architectural style

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[44] Buses are divided between larger, sixty seats ones for workers and young engineers and small fourteen seats ones are for middle management. Upper management travels with company cars, each three top managers in one car.

reflecting its historical origins. With little renovation taking place over the years, the plant feels sometimes frozen in time. The rusted fences, dusty buildings, white paint turned yellow, scrap and old spare-parts laying in open spaces between mills, old Lada cars and worn out buses roaming around producing fumes and noise, analogue phones, piling paperwork and endless archiving folders- sometimes dating from 1980s- occupying desk spaces, manual tools on shop-floors, worn-out furniture and old fonts used in motivational billboard signs across the plant all too often speak to how old this place appears. It is with this background in mind that the presence of young workers, with their not-so- grim facial expressions and quick walking pace, cannot go unnoticed amidst the majority of older workers in an old plant. The contrast between old and new generations of workers raises the question of how the new generations of young workers come to inhabit the plant and make of it their workplace; how their presence alters the way work is run every day in the different departments, mills and shop-floors, and what kind of relations ensue between both young and old generations.

The political background behind the recruitment of young workers at EISCO makes their story even more compelling. New workers are at the heart of the neo-liberal reform program, which the Egyptian state officially embarked upon since the early 1990's. The enactment of a new labour law in April 2003 enabled public sector enterprises to recruit temporary workers *(ʿimāla muʾaqatta)* on fixed-term contracts, usually ranging between six months to one year. This is a break from the way public companies operated since their inception in the mid 1950's. By offering lifetime work contracts, public sector companies guaranteed their employees stability in economic and life conditions and earned the public sector its widespread appeal among Egyptians. The new labour law hence marks a shift in state policy towards more flexible work relations and cheaper labour in manning the state enterprises. Added to the 'official' generation of young workers, I hasten to add, is an unaccounted for army of reserve labour of daily contract workers, mostly of young men, who started working at the plant following the introduction of fixed-term temporary contracts. The young men, who found getting a fixed-term temporary contract at EISCO increasingly difficult as the competition for jobs increased and the need for strong *wāsta* ('connections') became inevitable, were encouraged to work on a daily wage as an unofficial entry point to the plant. [45] Daily workers are expected to prove themselves at work and within 'a few' months- which often last between three to four months up to two years- secure a temporary fixed term-contract, without having to go through the tedious and hopeless process of

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[45] *The Dictionary of Egyptian Arabic* defines *wāsta* as 'one who deploys influence on another's behalf and acts as an intermediary'(Hinds and Badawi 1987) . It is also used in the common sense of 'connections', which, for ease of translation, I will use throughout the text.

officially applying for a job at EISCO. Chapter four in this thesis elaborates on the work and life situation of daily workers at EISCO. Daily workers aspire to secure a temporary contract, which would eventually be turned into a permanent contract one day. Temporary workers hope to secure the same end but a lot faster. Permanent work contracts were the ultimate desire of both groups. A ministerial decree annexed to the new labour law stipulating that temporary contract be turned into permanent ones following three years of consecutive work in the same enterprise helped channel these hopes and the desires for work stability.

But EISCO only opened its doors for new workers in 2007. New workers, according to official plant recruitment regulations, cannot be older than twenty six years old. The presence of new blood in the plant was largely welcomed by workers and management given that for sixteen years, from 1991 to 2007, EISCO, like most of the public sector in Egypt, stopped recruiting new workers and introduced an early-retirement package to facilitate the laying off of the old, and more expensive, generations of workers. The state's attempt to reduce the size of the plant over the years left it, according to the narrative of workers and engineers, with dire labour shortages by 2006. One of the engineers even described workers and management at this stage as being *Sharqānīn* ('parched for') new workers. EISCO's labour force, which in 1990 had totalled 25,062 and by end of 2006, prior to the recruitment of new workers, had been slimmed down to 12,759 workers- largely through a halt of new recruitment, normal retirements, sick leaves and a limited group of 'voluntary' early retirement- had lost almost half of its labour force in sixteen years. This sixteen years gap between permanent workers and new temporary workers, as the chapter highlights, largely affected the labour process at EISCO and the relation between what became divided as old and young groups of workers.

In this chapter, I suggest that one way to understand how young and old workers live the changes brought with the new labour law is to start from the relation between both groups, which workers on both sides, represent as a 'father and son relationship'. The different ways in which this father and son relationship manifests itself on the shop-floors of EISCO helps to clarify how neo-liberal policies, which are devised on the macro-level, are experienced, translated and made meaning of in everyday life. It thus illuminates how the interaction between specific policies and life conditions and personal and family aspirations, produce new ways of organising work and a constant re-fashioning of the values that people hold. Looking at the idioms of relatedness, which workers deploy in their everyday interactions, is expressive of the specific moral obligations, exchanges and work relations into which such idioms compel workers. In his study of a small urban industry in Tamilnadu in India, De Neve

(2008) examines management's use of kinship idioms – the "we are all relatives" discourse- to generate workers' cooperation. De Neve (2008) looks at why such a project fails in the light of an unstable work structure and the collapse of employer and managers' relations in a small scale industry. His argument builds on the delineation by Bloch (1971) of the moral and tactical meanings of kinship terms and his suggestion that we first look at the moral aspect of kinship, with the values and expectations it implies, and then observe the way it is used strategically by different actors.

As different groups of workers explained to me at various points, a father and son relation is meant to project respect and physical support from the sons to their fathers and mentoring and care from fathers to sons. Based on these moral assumptions, workers highlight how older workers' exchange of their *khibra* ('technical expertise') in return for young workers' manual work is a core component of their father and son relation on the shop-floor. However, the idolisation of this relationship by both young and old workers and the use of explanations that imply the equal exchange of expertise for manual work ought to be taken with a grain of salt, given the complex interactions real fathers and sons experience on the shop-floors and the unequal exchange of manual work and expertise between both groups. A closer look at the recruitment methods of young workers and the kind of everyday politics that the claims to a 'father and son relationship' enable at the plant today, could explain why this idiom of relatedness nevertheless has such widespread appeal among workers across the plant.

II. Kinship and Work on the Shop-floor

The use of kinship idioms on the shop-floor to control the workforces is widespread in many work places across the world. Kondo (1990) for example, looks at the idiom of 'the company as family' in a small family-owned Japanese factory. Kondo investigates how this idiom is practiced in a variety of ways on the shop-floor by different actors. She highlights "the strategic appropriations, political deployments, ironic twists, and subtle nuances in the peregrinations of an idiom, as it creates and constrains people's lives within the Sato factory and without" (1990, p. 161). Kondo shows how the use of familism in large enterprises of heavy industries originated with ideologies of paternalism that used notions of the "beautiful customs" of "traditional" Japan in response to labour unrest. The overt use of kinship references helped portray labour unions as unnecessary given the paternalistic care of the employer for the employee. The metaphor of company as family was also used, she highlights, by managers to assert more direct control over their workforce and to take power away from the labour

boss contractors, who had been intermediaries between both groups.

In the case of EISCO idioms of relatedness are used by the intermediaries, i.e. the permanent workers, in order to maintain their control over work on the shop-floor. By using references to a paternal relationship with temporary workers, permanent workers, who were often acting as the representatives of capital on the shop-floor, however, helped satisfy senior management's ambition of buying the support of the workforce for the increased repression of political freedoms and neoliberal reforms. But 'company as family' Kondo explains, is not just a discourse of managers. Kondo highlights how "workers stressed their claims to full membership and belonging to the firm in an idiom of familisim" and argues that "T.C smith also demonstrates workers' appropriations of the familial idiom, which emphasises their 'right to benevolence' (1988)" (1990, p. 161). What later became known as the "Japanese employment system" was forged, she argues, through complex negotiations among managers, the government, and workers. Similarly throughout her ethnography of the small factory she highlights not only how different actors appropriate 'factory as family' differently, but also how they do it differently in various contexts and for a variety of political ends. She looks at how for example permanent workers and temporary workers made sense of this idiom differently, for instance, the latter, claimed company trips as a right given their membership in 'the family'. At EISCO, temporary workers' willingness to adopt the idiom of 'fathers and sons', despite it enabling their ongoing exploitation, was also often used strategically in order to advance their position by management by being the *protégés* of permanent workers.

The moral claims, which different workers both stress and discount in emphasising group membership and conceptions of workers' statuses are thus important to the way work is structured. In the Sheffield steel factory studied by Mollona (2005a) younger casual and older organised workers judge each other differently. The younger ones see the old ones as capitalists' yes men, who advocate management's interest and care primarily about the machines. The older workers however, see the machines as an extension of their bodies, and consider younger labourers' lack of affection with their machines and their jobs as a sign of their greed and moral and physical incompetence. In Mollona's ethnographic context, the material differences among workers are discussed in terms of attitudes to machinery and generational struggles. Similarly, I analyse how the differences in life opportunities and status on the shop-floor between permanent and temporary workers is discussed in terms of a generational relation that highlight their actual connections as people related by ties of kinship and yet their disconnections as workers of different status.

Haynes (2000) looks at how the kinship idiom of the industry being like a family in the past was ubiquitous in two centres of the textile industry in India- Surat and Bihwandi. He finds the views of history of the industry as a family to affect workers and managers' perception of the present conditions of the industry, the way work relations were conceived of collectively, and the very expectations for the future. He takes interest in how such nostalgic memories enable workers to contest the present and undertake small tasks of resistance. Like Kondo (1990), Haynes shows how the concept itself of *ghar*, ('family'), proved to be "a malleable one re-interpreted in a wide variety of ways by persons in different social situations, each way with significant ramifications for their views of the past"(Haynes, 2000, p. 143). At EISCO, the 'father and son' idiom was deployed and interpreted in multiple ways in order to suggest, at times, the authority of older workers over the younger workers, but at other times the element of care and trust. The many facets of the idiom of 'fathers and sons' thus enabled workers to interpret it differently and to channel it towards advancing their interests and meeting their desires for recognition, social mobility and control over work.

The prevalence of the idiom of 'father and son' in a place where patriarchy is often considered a 'cultural trait' risks obfuscating how specific factory policies and wider economic and social conditions, re-produce patriarchal norms. It is thus important to contextualise factory policies here in order not to revert to ahistorical and acultural explanations that assume that the patriarchal family form is a given in Middle East societies and reproduces itself in a vacuum separate from the economic and political situations that surround it (Doumani, 2003). In India, a place where patriarchy is also pervasive, Fernandes (1997) shows how employment and positioning on the shop-floor is contingent on patronage relations with male kin in the Jute Mills in Calcutta. The conclusion she makes is that the labour market is therefore, shaped by this patriarchal route to employment, which implicitly restricts women's access to factory work. De Neve's ethnography (2008) also shows how patriarchy does not take a single form and is not static, but could itself become a discourse that arranges workers into different relations. The chapter similarly focuses on factory recruitment and employment policies and how, in their interaction with the locality, they re-produce patriarchal behaviours inside and outside the factory.

The focus on kinship in the idiom that permanent and temporary workers chose to speak of their relationship with one another, also highlights the interconnections between different aspects of social life and their interplay on the shop-floor. For example, Fernandes finds (1997) that fights that originate in the neighbourhood between workers are played out on the shop-floor between union and

management, while Holmström (1976) argues that the relations of kinship between organised Indian industrial workers and casual workers enables the solidarities between them to withstand capitalist attempts to fragment the working class.

In contrast, Engelshoven (2000) looks at the diamond industry in Surat, India, and explains why *hira karigars*, diamond cutters, did not revolt or take part of large protests despite the exploitative work conditions. She argues that the differences within the group of *hira karigars* in terms of status, skill, wages and living conditions do not enable them to come together. A world of difference separates the inexperienced 'table' *karigar,* who works and lives in his uncle's small workshop and earns 1,500 Rs month and the super*karigar*, who works on in the bigger diamond factories and earns 8,000 Rs monthly. But it is mostly the kinship relations between owners of workshops and *karigars* that prevent mass protests of organising. Engelshoven finds that practically all owners were *karigars* in the past. In addition, being kin implied shared common caste membership. *Karigars* would say they felt that owners knew what it meant for them to be working in the trade. Owners gave loans to *karigars* because they would say that 'we're all brothers'. Engelshoven argues that: "one important aspect of this kinship between owners and workers is that it gives many *karigars* hope that it is conceivable for them to one day become owners themselves" (Engelshoven, 2000, p. 373). This is also similar to the ethnography recounted by De Neve (2008) who finds that owners secured workers' consent because they were all from the same upwardly mobile caste, which gave workers hope of one day becoming like them.

The fact that the majority of the new fixed term temporary workers were sons of permanent workers at EISCO is integral to the way the structural division of labour between them was manifested on the shop-floor and in terms of job security. Kalb (1997) focuses not on the kin relations between management and workers, but between workers themselves. At the Philips plant in Eindhoven in the Netherlands, management took advantage of the abundance of unskilled female labour among the peasantry, which enabled it to be competitive through its cheap labour. The families of the female workers, who were short for cash, encouraged their daughters to be more efficient at work. Management capitalised on this familial relation, and found jobs for the girls' fathers. Daughters' devotion to their fathers was used by management to increase their commitment to their jobs and thus strengthen its grip on them.

Similarly at EISCO the kinship networks between permanent and temporary workers do not enable

the latter to resist the exploitation they are often subjected to at the hands of management and permanent workers. Rather, temporary workers attempt to secure permanent workers' support, in the hope of one day, securing the luxuries of a permanent contract, skills and relations that the old permanent workers own. Permanent workers in turn, who are happy securing temporary jobs for their sons and relatives- in the hope that one day they will be turned into permanent contracts-, do not object to the individualisation and privatisation of their skill through the introduction of fixed-term workers, whom they are meant to share with the collective expertise they cultivated over the years . Although the latter risk destabilising the old workforce, by slowly replacing them, permanent workers do not show much resistance to the practice of recruitment of temporary workers because management exploited their aspirations for social mobility and social reproduction by offering the new jobs to their children.

Engelshoven (2000) explains further that the castes of owners and diamond cutters in Surat originated in the same areas. Money by big factory owners was invested in the castes homelands in building schools and facilities that served the community. In a sense, it helped localise the relations between owners and managers that further strengthened the consent of the latter to their exploitation. Similarly, Lee (2009) demonstrates how 'localism' at the factory in Shenzhen, China where she conducted fieldwork, was used as more than simple preferential treatment given to people of the same localistic origin but also implied "the reconstitution within the factory of communal gender hierarchies embedded in localistic networks" (Lee, 2009, p. 244).

Baladiyyāt ('people who share the same local origin') plays an important role in the recruitment of temporary workers at EISCO. It helps localise the networks of relations that permanent workers attempt to expand inspired by the 'relational value' (Elyachar, 2005) that guides their community. Although, *Baladiyyāt* did not systematically interfere in the allocation of tasks on the shop-floor, it was strategically manipulated by different actors when need be. These networks helped re-enforce the belief that EISCO was a self-enclosed place, where only those already part of the wider networks of permanent workers and managers could get into the plant. These politics of localism in turn made an idiom based on the ideology of an enclosed society, like a father and son one, more salient and accepted at EISCO.

On the shop-floor of the Morris plant in Sheffield, the organised labourers are the *de facto* leaders, not only because of their skill, but also because the networks they share with other steel customers,

producers, scrap traders, and second-hand machine dealers (Mollona, 2005a). In addition, organised labourers arrange housing for casual labourers, thus becoming both work leaders and landlords. At EISCO, local relations enabled permanent workers to exploit temporary workers, who acquiesced to their own exploitation, while at the same time as it made permanent workers consent to their own long term destitution.

III. Why Fathers and Sons at EISCO?

The reference to father and son relationships between permanent and temporary workers is salient at EISCO for a variety of reasons. In a conversation with Mr. Saleh, the head of Industrial Relations department, he volunteered to show me one of the standard calls for applicants for temporary production workers. Mr. Saleh explained the selection criteria that management used in filtering applications. The job advertisement requires applicants to be no older than twenty six, to provide proof of industrial middle qualification and medical and military duty clearance. Applicants, who are eligible are then asked to come for interviews. In the final evaluation of an application twenty points out of one hundred are given to applicants, whose fathers or mothers are EISCO employees. Preference for employee's sons and daughters however, was never disclosed in company job announcements but became part of a *de-facto* company recruitment policy.

At the Plate- and Sheet- Rolling Mill, out of thirty fixed-term temporary workers I surveyed, sixteen said they were recruited through their fathers, who were working in the plant (of which seven were working with them on the same shop-floor); eight had a relative in the plant (usually uncle, brother, or grandfather), five were recruited through their *baladiyyāt* and only one person was recruited without any connections. He was very qualified, having a five year industrial diploma from the labour university (as opposed to the standard three years). At the Coil Rolling Mill, out of thirteen new fixed-term temporary workers, six said they were recruited through their fathers, five had relatives in the plant, and two were recruited through a contractor, although one of them had a father who had retired from the plant before his son joined in. Among the sixteen daily workers at the Plate- and Sheet- Rolling Mill, ten had fathers working in the plant, two had relatives in the plant, three had *baladiyyāt* relations that got them in and three abstained from answering. In turn, out of seventy four permanent workers surveyed in the steel plates and sheets mill, seven had children working in the plant, while four had children of working age and said that they tried securing contracts for their children but failed.

The presence of fathers and sons on shop-floors was not therefore uncommon and was for most of the workers the single most important way of guaranteeing a temporary contract in the plant. Workers' pressure to employ workers' children explain, albeit partially, why the analogy of a 'father and son relation' between old and young groups was rather naturally deployed at EISCO. In addition, with the very existence of fathers and sons working together since the plant's inception- often with the first generation of workers, which was employed in the 1950s, securing employment for up to four children in the plant- the deployment of an idiom of relationality structured around the belief that the plant was a place that nurtured relations between fathers and sons was easily accepted.

The very tactics of plant management and state officials to represent EISCO, since its inception, in familial terms also spread widely the idiom of a father and son. At EISCO, the proximity between the plant and the company town enabled such imaginary reconstruction of the plant as locus of familial relations. In addition, other celebrations and practicalities facilitated that- for example competitions and parties the plant organised for the mother of the year and plant buses transporting workers' children, who live in the company town, to their schools and universities until the late 1970's. It was also not uncommon that plant notices and union pamphlets to wish "the family of EISCO" a happy Ramadan or *ʿīd (*'Muslim feast'*)* and references to the company as the 'mother of the workers' who gives endlessly to be used by some workers.

Continuing his conversation*,* to justifying the recruitment of workers' children, Mr Saleh said that growing up with a father, who works at the plant acquaints the children from an early age with the kind of work structure and work load the plant requires. Mr. Saleh was capitalising on the ability of permanent employment policy to establish close ties between the plant and workers' households (Dore,1973; Parry, 2001; Parry, 2005). For instance through annual summer trips, where workers' families spend time together and household members are introduced to a worker's managers and co-workers, the ties between both spheres are forged. Many members of the workers' households that I visited could in fact easily list the names of managers and co-workers of their fathers or mothers. It was not difficult to imagine permanent workers as fathers and temporary workers as sons then.

But actual hiring of workers' sons is also attractive for the plant, Mr. Saleh explained, because new workers will take the same buses from the villages and towns, where their fathers are usually picked up, and hence will not incur any further transportation nor housing costs to the plant. Instead of having to offer the new workers housing and transportation like the first and second generation of

workers, the responsibility of housing new workers was thus transposed to fathers, who recruited their children to the plant and continued to support them in paying apartment rents, as chapter five elaborates. Management was guided by the need to cut expenditures in the public sector, but was also attempting to appease workers and buy their support for neo-liberal policies and the on-going clamp down on freedoms of association and protest in the plant. By meeting workers' demand that their children be given temporary and then eventually permanent work in the plant, management cut expenditure and generated consent for the state's policies of flexibilisation and repression. Workers, in turn, were exerting pressure on management to continue meeting the expectations that the welfare state itself had set when it hired generations of workers' children over the years. In a sense, workers forced management to continue securing the upward mobility and future stability of households tied to EISCO. These expectations, hopes and valuation of expanding their relations at work were capitalised upon by the state to silence workers.

Workers represented this need for the state to continue meeting the expectations of upward mobility it set by expressing the need to hire their children as a 'right' in return for the labour they have put in over the years. Throughout my conversations with permanent workers, I was repeatedly told that giving their children jobs at the plant was the least the company can do to pay them back. "We have sacrificed our lives and our health for this plant, the least they [management] can do is to give our sons a job" – *"ihnā dahinā b ʿumrinā, w bi ṣiḥitna, ʾaqal hāga yishaghalu ʿiyālna"* tells me ʿamm Gumʿa one of the old workers at the Plate- and Sheet Mill. EISCO was known to recruit workers' children for most of its history. However, as opportunities outside the plant dwindled during the neo-liberal years, working for EISCO became even more appealing and was deemed by workers as an uncontested right.

Although many workers preferred to give their children a higher education that would secure them a clerical job, manual work at the plant continued to provide decent life conditions to new recruits. Workers liked to repeat the number of children they have at higher education institutions, the doctors, the engineers and the law and commerce graduates. Education was *sine qua non* of upward mobility. In justifying the pride that workers' have in their children's education, ʿamm ʿUmar uses an explanation I heard repeatedly in the plant: "Everyone wants to see their children better than themselves. Everybody tries to compensate in their kids." ʿamm ʿUmar, for instance, has two sons, the eldest went to university and the younger went to the 5-year technical school (a little more advanced than the plant's 3-year technical school). ʿamm ʿUmar always complained about what that the first child was

costing him and the money he always demands. His youngest son, he says, got high grades that could have taken him to high school and university. But given that today most of the university graduates are not employed and *ʿamm ʿUmar* always finds them sitting on the coffee shops, he decided that his son better get a technical education. Many workers would actually prefer a higher education for their children, but many also reason in the same way that *ʿamm* Ali does given the changing nature of the labour market.

On our mill for example, there were eight fathers who had sons of working age who were unemployed. Three out of those eight are university graduates, while on the coil mill five sons had a university education and were unemployed. These unemployment numbers that workers reported do not reflect the precarity of working conditions that those who are employed often are subjected to, which makes them not much better off than those unemployed. Only three out of the seventy four surveys of permanent workers show that their sons made it to the 'top schools' (engineering, computer science, medicine and pharmacies) which guarantee better living conditions than the rest of the university graduates. Only three on the coil mill had children at 'top universities'.

Making it to top universities requires a lot of capital investments in children's education (especially with the increased privatisation of education with private tutoring lessons) that were not affordable by most workers. The limited openings in these top schools also demanded that those who join the plant be unequivocally competitive. It should not be surprising then that near the end of my research, the plant's CEO requested every worker in each mill to submit a record with the names of his children whom he would want to employ at the plant so that management can design a strategy for recruiting them. The attempts to formalise the recruitment of workers' children also spares particularly upper management from the pressure workers put on them through the connections they mobilise directly or through the unions, and makes it easier to regulate the distribution of bribes across their departments.

The presence of so many fathers and sons at the plant, and the increased emphasis on employing one's offspring thus explain why permanent and temporary workers could choose a kinship idiom such as that of a father and son to represent their relation. In fact, demographically the halt of recruitment for sixteen years at the plant resulted in many of the young workers being of the same age of the old permanent workers' children. The fact that job postings, according to Mr. Saleh, were initially not made public in newspapers but announcements were only posted inside the plant and on

its doors meant that many of the old workers are responsible for spreading the word about the jobs in their respective neighbourhoods and their villages, which made them the primary recruiter of temporary workers and turned them into the benevolent patrons of the young ones. The presence of, and preference for, the real kinship relationships of fathers and sons in the plant, the age and generational difference between the groups and the fact that young workers come from the same areas as the older workers thus serves to ingrain the fictive kinship relation of fathers and sons that most young men and old workers deploy on the shop-floors.

IV. Respect and Care between the Old and Young

During one of the conversations I had with engineer ʿAdel, a production engineer, he explained how he thinks the young temporary contract workers have the same rights at the plant: "the young and old workforces share the same benefits of working in the public sector". "Maybe on the company bus a young worker will find an old worker standing up and so he will leave him his seat. But this is out of respect, only out of respect." Drinking tea is the most common activity at the plant and during a single 7 hours shift one would drink at least three to four cups of tea. Early on in my fieldwork, I asked a group of young workers working on the Section- Rolling Mill, whether they were expected to prepare tea for the rest of their shift because they are the youngest. One explained that this is often the case and that the practice was quite natural. They were astonished that I found the practice rather disturbing. My interlocutor thus continued to highlight that this is common practice, which they were okay with because "it was out of respect that young people ought to be serving the old ones"- "*al-ṣughayar yikhdim al-kabīr min bāb al-ʾiḥtirām"*.

Respect for older people is one moral dynamic that is at the heart of fathers' and sons' relations and which compels young workers to undertake many of the manual and services job that they are technically not supposed to be doing under their contracts. Old workers, on the other hand, do not shy away from claiming their right to this respect. "*Fin al-shāy ya wilād*"- "Where is the tea boys?" was often repeated on the shop-floor of the Plate and Sheet Mill, always half-jokingly but with a clear message that the tea needs to be made. Addressing one of the young workers, an older worker, again half-jokingly would say "Is this possible that you leave us till now with no tea?" and most often the young man, depending on his character, would either apologise or make a joke about having already fixed them tea earlier and then fixes the tea himself or tell one of his mates to do it or just do it

a couple of hours later.

Some engineers are aware that old workers tend to abuse of young workers' respect for them. Engineers, who see themselves being 'fair' managers, attempt to redress this. Engineer ʾUsama, the head of the blast furnaces departments, recounted to me in an interview his experience in trying to empower the new workers. "I remind them that they are as good as the old ones" he continues "and should not let them [the old workers,] provoke them". He adds, I also tell them: "don't let them [the old workers] get used to you preparing the tea." As the coming sections highlight, young workers often accept their subordination to old workers for a variety of different reasons that the engineer's attempts to 'empower' them fails to grasp.

On the other hand, some of the old men would explain that they would not let the young ones do hazardous jobs because they "fear for them like their children"-"*binkhāf ʿalihum zay wilādnā*". Mentoring and caring for young people, and receiving care in return, is the second moral component that is emphasised in the 'father and son relation'. Fadi a young Christian worker, who had lost his father at a young age became very close to Mina, an old Christian worker, who was almost like a mentor to him and would repeatedly give him advice regarding his relation with his fiancée and the way he arranges his life. ʿAlaa, an old pious worker, encouraged ʿAmr in his quest to get closer to God. The two developed an affinity and every morning Hussein would call ʿAlaa to wake him up for the dawn prayers. ʿAbd al-Rahman, who was technologically savvy, would help ʿAbd al-Fattah, an older worker fixing his computer at home or downloading things on his mobile phone.

Although respect for elders and care and mentoring for young ones are core moral expectations in the 'father and son relation', these expectations do not however exist in a vacuum. Bloch (1971) distinguishes between the moral expectations embedded in kinship terms and their strategic use. That said, one could possibly also explain a little where the moral claims themselves come from and what strengthens them over time. Goldberg (1992) suggests that the two most important attributes in the Egyptian public sector that distinguish its permanent labour from their colleagues in the private sector are the security of employment and seniority created by a union structure that gives all pay, perks and benefits to senior workers. Seniority at EISCO is indeed the most important aspect in almost all matters from job appraisals to bus seating[46]. The fact that at an institution like EISCO, seniority, more than

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[46] Bus seating arrangements are organised based on seniority with the most senior workers in front and the least at the back.

efficiency for example, is the most important mode of evaluating workers and arranging work could explain, albeit partially, why we see such emphasis on respect for elders common in kinship moralities here.

During my fieldwork outside the plant, both young and old people spoke of the increased dependence of sons on their fathers in many aspects of their lives. Fathers in Egypt have in general been expected to contribute to their children's education, wedding expenses and marriage set-up costs. In addition, in rural areas, the common practice remains that young men live in their fathers' houses, in what becomes the family house after marriage (usually building an extra floor on top of the house). However, given the limited job opportunities for young people today, the rising costs of consumer goods and the relatively high living standards, which upwardly mobile EISCO families expect to maintain, young people, and especially EISCO children, have become increasingly dependent on their fathers financially. Unlike permanent workers, who boast about being self-made men, who had few possessions early on in their lives, young men in EISCO's community are forced to depend on fathers to survive and maintain their social positioning. The statistics reflect how permanent workers' conditions at the start of their lives were different from those of temporary workers. Of the seventy four permanent worker surveyed on the plates and sheets rolling mill, 28 declared that they had no personal connections to the plant during their recruitment (15 learnt about the opportunity in a job advertisement and 10 were 'required' by law to work in the plant for a minimum of 5 years after completing their education in the plant's technical school), 14 had fathers in the plant already (of which 6 were also trainees a the technical school of the plant and required to join the plant by law), 15 had relatives in the plant (of which 5 were also trainees at the technical school of the plant) and 6 were recruited through their *baladiyyāt,* while 8 abstained from answering.

To accommodate the precarious life conditions, many permanent workers in the company town or in other urban areas, have for example, moved to the rural areas- either by returning to their home village or by moving to rural area near the plant in al-malaʾa in order to build family houses, where they can co-house their children's families. These trends became salient following the increase in tenancy costs in urban areas and the privatisation of the housing in the company town. [47] A few EISCO fathers also pay rental costs for their children's houses for a few years. To reiterate, respect for elders

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[47] Rental prices had increased in the late 1990's after a new tenancy law was introduced that liberalised the housing market and set prices according to market rates. Further discussion about housing situation is found in chapter five.

and elders' care for and mentoring of younger men are moral components that make up the meanings of the father and son relation. However, emphasis on respecting elders and caring for young people does not exist simply because of a morality that develops in 'patriarchal societies' independently from other social and political developments. Rather the latter always informs and re-enforces the moral beliefs and practices that structure the communities. The emphasis EISCO puts on seniority in work relations and the increased dependence on fathers among young people could partially explain why the dynamics of respect, care and mentoring are at the core of the so-called father and son relation that tie permanent and temporary workers in the plant.

In one of the shifts on the 3-High Rolling Mill, I found older workers always the ones preparing the tea. I enquired about this from ʿAbd al-Rahman, one of the young temporary workers, who is the most skilled -having been trained before on a rolling machine in a military factory- and who was part of a production shift that included two other outspoken temporary workers, who grew up and lived in urban areas, in contrast to the rest of the temporary workers in other shifts, who came from the more morally conservative villages around the plant. I asked ʿAbd al-Rahman how come it is not *their* responsibility to fix the tea. ʿAbd al-Rahman told me, "*laʾa iḥnā ʿawidnāhum min al-ʾawil*" –"No, we made them get used to this [not making tea] from the beginning." The answer was of striking similarity to what a young man or woman would say if they were speaking about transgressing social norms about familial obligations. Rami for example, the older son in my host family would say "*ʾanā miʿawidhum ʿala kida fi al-bayt*"- "I made them get used to this at home" when he would speak about spending the whole days out of the house. I invoke this example here to emphasise that the discourse of 'father and son' is not always deployed in a teleological fashion and that different actors deploy it and interpret it differently given their respective backgrounds, preferences, political ends and personal quirks. ʿAbd al-Rahman's temporary co-workers, being a bit more outspoken, were able to put the boundaries to where they think respect and care obligations ended.

During my presence at the administration building to change my overalls one day, I heard gossip about the plant bus that did not leave yesterday on time because a fight had erupted between commuters on the bus. Friends, who were on the bus, explained to me that a new young female engineer had been appointed at the plant on a fixed-term temporary contract. She was also the relative of one of the big-shots in the administration and one of only three females employed on temporary work contracts across the plant. Although she was less senior than other workers, as a female she was expected, by plant practices, to be given priority in the seating arrangement, usually in

the front rows of the bus. This however, meant that the last person seated had to give up his place and stand during the bus journey. With time the men at the back seats rotated in standing during the bus journey, but then a fight erupted over which of them will stand up that day, especially when one suggested to the other that he was just telling others to stand up because he was ingratiating himself with the high profile relative of the female engineer. The dynamics between old and young people is meant to be based on respect and care. But as this incident suggests this is not set in stone. Gender and status differences also disrupt the 'official' ways in which hierarchal relations are morally arranged in society. They thus re-configure both the moral claims and the hierarchal structures that are prevalent in different spaces.

V. Exchanging *Khibra* for Manual Work

In one of the early conversations I had with Hassan, a permanent worker in the dolomite production mill, he explained how he viewed the relation between the old and young workers at EISCO: "The youth help out [*b-yishīl*] the old-aged and the old give them their expertise [*khibra*]." [48] Hassan explained that a man who is approaching sixty "has already given the plant a lot"- "'*ida li al-sharika kitīr"*. In contrast, the load, he says, is now on the younger workers who enjoy more health. "The young one gives some rest to the old one from the muscular work", he added. Such explanations were repeated to me so many times both when I spent a month visiting different mills of the plant, and later when I settled on the steel Plate- and Sheet-Rolling Mill. The exchange of expertise in return for manual work seemed at the core of the work relation between old and young workers. Exchange of expertise for manual work invokes elements of the mentoring, care and respect that the moral setting of 'the fathers and sons' idiom constructs.

Expertise, both in the technical and relational sense, and the ability to undertake manual work, are the most needed elements of work at EISCO following the neo-liberal restructuring. The father and son idiom that workers express in terms of an exchange of expertise and manual work captures the pre-requisites of work at the plant today. As mentioned in chapter one, many of the plants' mills continue to operate with the same machinery that started with the plant in 1958. The old machinery,

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[48] *Khibra* implies expertise in general that is acquired with time. It is deployed largely at EISCO to reflect technical expertise that permanent workers acquired through long-term employment. But sometimes it expresses allusions to expertise about how to negotiate situations in life and handle relations, since *Khibra fi al-ḥayāa* "expertise in life" is the most common context, in which the word *Khibra* is used in Egyptian everyday discourse.

which constantly breaks down renders the work, on the one hand, personalised and skilled and, on the other hand, largely manual. Chapter one has demonstrated how the work of permanent workers capitalises on their skills and relations. The second load of the work, the largely manual one- though one should add not necessarily totally unskilled- is primarily becoming the responsibility of the temporary workers and the casual daily workers.

However, the exchange of technical expertise for manual work does not happen on equal terms. In many cases the division between the areas that old workers are responsible for and the ones young workers are responsible for lead to a strict division between technical work and manual work and thus little exchange takes place. It is difficult to compare two different things like manual and skilled work, especially when the latter is difficult to quantify, because most of it is implicit and transmitted in semiotic terms. But the arrangement of work at EISCO does hint at the fact that the load of manual work is larger than what is exchanged in terms of skill. At the Plate- and Sheet- Rolling Mill this division was fairly clear. On the 3-high rolling mill, each production shifts included two to three new temporary workers, who were responsible for the manual work to substitute the run down technology. For example, as explained in chapter one, young workers throw the palm tree chaff on the hot slab and direct the water hose to clear off the oxide on its surface. When a slab is stuck, they push with levers and crowbars. They also alternate in writing the slab production and breakdowns on the board next to the machine. In addition, at the end of every shift, they also clean underground the oxides that fall under the machine. Most often older workers would help a little in the throwing of the chaff, using the water hose, pushing with levers or crowbars and writing on the board, which require workers to be very close to the hot (1830 degrees) slab, but very little when it comes to clearing the oxides underground at the end of the shift. All these tasks however were understood to be the young men's responsibility.

The older workers for example, will never bring the chaff themselves from the trucks that deliver it- to lift anything is generally the lowest ranked job, often given the name ʿitāla. ʿitāla is defined by the *Dictionary of Egyptian Arabic* as "carrying a number of things and a number of times" (Hinds & Badawi, 1987). ʿattāl the person, who performs the ʿitāla, is defined "as the one who loads and unloads trucks, a porter, or a carrier" (Hinds & Badawi, 1987). It is also derived from the word ʿatala, i.e. the manual tools used in production. In everyday discourse, ʿitāla has a negative connotation of representing both manual work that requires no capacity for imagination or invention, in addition to being the type of manual work needed for tasks considered of low status, such as

carrying other people's things, loading and unloading objects and so forth. When maintenance repairs take place (usually once a week), the machine is turned off and the entire shift, including permanent workers, goes underground to clean off the large quantities of oxides. But it is mainly the young ones who will do the clearing, lifting and most of the cleaning.

ʿamm ʿUmar, for instance, used to joke with temporary workers saying "go play away, you ʿattāl" or "Clear *your* chaff from the area", because temporary workers often brought and unloaded the chaff that was used in production. Fadi, one of the most outspoken young workers, tells me when I first start coming to the shop-floor, "now document this, I came here to work as a ʿattāl". Fadi wanted me to document the manual work he was doing, which he found degrading. When, in the underground tunnels, I once joined Mina's production shift, who were more relaxed than the others about my contribution to production, and helped in clearing a little, the production engineer scolded me later for 'putting myself at risk' and asked that I never go underground again without his permission. He formulated the critique in a language of both gender and class that made reference to the low status of manual work. According to him, as a woman, I was not supposed to do work that was below my status, which was only for the workers to do. Besides, he said, being in closed areas with men, including resting and eating with the workers' shift in their make-shift room at the side of the shop-floor- which he also disapproved of and required me not to continue doing- could put me at 'risk', he said, because workers are not as educated or open minded about mixing with women. Anything, it seemed, that involves sharing bodily movements and activities, including eating, is considered of 'lower status', especially by the engineers.

In contrast, the responsibilities of the older workers include rotating between the control room- which is slightly elevated from the shop-floor and is air-conditioned- and standing next to the machine to help with the above-mentioned tasks, or to take slab measurements while they were rolled. Most of the young workers were not trained to operate (they call it drive) the machine from the control room. Driving the machine needed more than just experience in knowing the different buttons and joysticks. It also required a great deal of skill in order to know how to deal with the problems that erupt, such as two slabs getting out of the furnace at the same time, the low quality or low temperature of a slab that makes it roll faster, or the tricks to release a slab that is about to be stuck (like pushing forward and backward very quickly the joystick). Young workers, who were resting from throwing the chaff next to the machine, would often come up in the control room to just learn from watching the old man operating the machine, while enjoying the air conditioning. When standing next

to the machine on the shop-floor, temporary workers would also direct the driver in the control room through signs and hand gestures in order to alter the slab direction. The more skilled of the temporary workers took slab measurements and conveyed the numbers to the control room operator by hand signs. But that was the extent to which the *Khibra* and manual work were mixed. In the maintenance workshops on the shop-floor, the situation was different. Permanent workers and temporary workers work together on similar tasks and the arrangement of work is typical of a blacksmith workshop, where young workers were the apprentices *par excellence*. Maintenance temporary workers thus spoke more often of acquiring *Khibra* from permanent workers, than did temporary production workers. But they were the exception rather than the rule on the shop-floor.

Midway through my research the production engineer began flirting with the idea that the young workers should soon be learning to 'drive' the 3-high machine too. This did not happened by the time I left the mill in late 2009. However, in the midst of my fieldwork another event occurred that was very informative about the limit of the exchange relation between manual and skilled work. ʿamm Shaʿban, an old shift supervisor and ʿamm Hakim, the driver of the machine in his shift, were both subjected to an internal legal investigation, when a very expensive clog wheel was found broken following their night shift. The investigators decided to cut an enormous part of their salaries for putting the wrong pressure on the slab while rolling. The gossip went around the mill that it was not the mistake of the driver but that a specific safety valve in the machine did not operate properly because it was of lesser quality and therefore really a question of supplying spare-parts. A few months later, the verdict of the legal questioning was reversed and ʿamm Shaʿban and ʿamm Hakim were cleared. It was proven to be indeed a problem with the safety valve.

However, after the incident most of the young men, who previously said they wanted to learn to drive the machine, were now reluctant to do so. Shaheen one of the young workers said that had it been one of them driving the machine, they would be fired instantly because their contracts were not permanent. The incident was so traumatising that the driver also wanted to distance himself from that type of skilled work and requested to be moved to another part of the mill where he would have less responsibilities. The division of labour on the steel rolling machine gives some idea to how manual and technical skills are separated by the very nature of production, which results in an unequal exchange of manual labour for technical skills. In addition, the reluctance of young workers to take up more skilled work, and thus responsibilities, given their unstable work conditions limits the work they can do on the shop-floor to the more manual work.

The equal exchange of technical expertise for manual work also does not take place equally in some of the shifts due to the shift supervisor's management style and the threat temporary workers seem to pose to some permanent workers, should they acquire all the tacit knowledge and replace their work gradually. In one of the four shifts at the 3-high mill, the young workers were complaining about the management style of their head of shift. "The person we are talking about", Shaheen says not wanting to tell names, but knowing that I was aware he was talking about authoritarian Masry, "doesn't even let us do the measuring of the slab thickness ourselves. He has to come down [from the control room] and do it himself", he continues. "Even *Allah Yinawwar* [well done], he doesn't say it"[49]. This behaviour, Shaheen continued, was also prevalent among the middle aged workers, who had at least ten to twenty years more to spend in the plant before retirement. According to Shaheen, the latter saw them (young workers) as a threat to the gains they could make in the coming years and to their job security overall, should management decide to become fiercer about imposing early retirement packages.

In a sense, one could argue, following Elyachar (2012), that permanent workers were aware that the introduction of temporary work in the plant was an attempt to break the collective implicit knowledge, which they shared in their skills, by making it explicit when transmitted to 'cheaper' temporary workers, who could one day replace the first, and thus be more profitable for management. This indeed contributed to some old workers' reluctance to share their skills with young workers at times. Although in this structural position, permanent workers did not have so much of a choice and I imagine that should temporary workers spend a few more years in the plant, permanent workers would lose out eventually and temporary workers would become equally skilled.

But temporary workers did not seem to present a direct threat to workers because of the security that EISCO enjoyed. For example, when the government announced in 2009 that it was contemplating selling all public plants under *Ṣuqūq*, individual shares to every citizen, they announced that EISCO would be an exception because it was 'strategic' industry. The confidence that EISCO was different, because it was strategic, reduced permanent workers' anxieties about the possibility of layoffs at EISCO. In addition, although not every new worker was a son of an old one, yet the prevalence of such cases- for example we had seven real fathers and sons on the shop-floor- made most workers consent to sharing their skill with temporary workers. This was also facilitated by the ties of *Baladiyyāt*- which gave the impression that workers were sharing their skills among an internal network of extended kin.

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[49] For further elaboration on the origins and meanings of *Allah Yinawwar* see chapter one.

In addition, towards the end of my fieldwork, in July 2010, most temporary workers were also given permanent contracts at EISCO, which makes the theory that the first are a viable alternative to permanent workers hard to maintain as an explanation to why permanent workers would not share skills with younger workers.

Nevertheless, one should add that permanent workers were often happy to share their knowledge with young workers for a variety other reasons that Shaheen's rationalisation does not fully take into account. In at least two of the four shifts I was working along, the older men, including the middle-aged ones, were very encouraging of young workers and would spend time explaining how to do a certain task. But one occasion made me wonder if sharing their technical expertise, even among the keener shift members, had anything to do with an exchange for young workers' manual work. One day, when I came to the mill and fathi, one of the shift supervisors, was really angry, shouting at Tamer one of the young workers in the shift for having made a mistake when fixing some parts of the machine. This was uncommon, Fathi was one of the most cool and cooperative old men, who maintained good and friendly relations with the young men in his shift. I asked Fathi a bit later when he calmed down what had happened. He said Tamer made a mistake while replacing the rolls during a maintenance repair, but it was his (Fathi's) fault for leaving him alone to do the task and assuming he can do it alone. Now, until the new spare part comes, the mistake will be seen by everybody around the shop-floor and it will be such an embarrassment for him (Fathi) that his shift can be responsible for such a silly mistake.

The collective nature of the work at EISCO makes it particularly difficult at times to identify what is permanent workers' responsibility and what is temporary workers'. The pride with which permanent workers deal with their skill and the personal association they have with the machinery makes their labour fluid in a way that it can easily be associated with that of temporary workers. This way of thinking of their labour as a 'gift' (Mollona, 2005b) to temporary workers, which flows on the shop-floor, helps permanent workers to establish themselves as mentors and men of skill and knowledge which increases their status at work. In a sense, temporary workers' labour could become, at times, encompassed within the first.

I have argued in this section that the wide-spread references to the exchange of *Khibra* for manual work among workers, when justifying their father and son relation, obscures the current exploitation of young workers, who do more manual work than acquire *Khibra*. The excessive load of manual work

that falls on the young workers, which comes with the lack of spending on machinery and the old age of the permanent workers which limits their mobility and enables them to capitalise on moral claims to respect for elders that guide the community, makes the latter comparatively disadvantaged at work. The claim to the exchange of *Khibra* for manual work does not reflect the many situations where transfer of expertise does not happen at all because of the division of labour structured by the production process, or out of fear of the young workers who would replace the old ones; or takes place in only a limited way not necessarily in return for young workers' manual work, but rather because of the way permanent workers value their own labour as part of their very persona, or because of the prevalence of blood and *baladiyyāt* relations among both groups.

VI. Actual Fathers and Sons on the Shop-floor

The presence of some actual workers' sons on the shop-floors with their fathers was strongly criticised by many old and young workers in our mill, who although they thought hiring workers' sons in the plant was their undisputed right, found their presence on the very same shop-floor unacceptable and a source of much trouble. The presence of these real fathers and sons discounts the idealistic claims that the fictive kinship idiom of 'being like father and son' on the shop-floor try to construct and exposes how it functions primarily as a disciplining and controlling measure by the old workers towards the young ones. ʿAlaa, one of the shift supervisors in my mill argues that it is difficult to discipline a worker's son because of the presence of the father, whom they "try to respect" "*yiʿmiluh ʾiʿtibār*". Similarly, a few of the sons hired on their fathers' shop-floors, seem unhappy with the politics this creates. I looked closely into three of such cases (of fathers and sons working together in our mill). Two pairs were working together on the steel rolling machine and the other in a different part of the mill. In the first two cases of workers on our machine, both young men wanted to be moved into another part of the mill away from their fathers after too many problems had resulted, but were advised by engineers that their work on the machine was better for them in the long term.

ʿamm Shaʿban's son, Nadir, complained that he can never know if people are nice to him because of his father or because he is nice. He said the preferential treatment he gets from the head of shift, who is his father's colleague, also embarrasses him among the rest of the young ones. Nadir also had to be moved from one shift to another, when his father was made head of his earlier shift, and thus lost the group of friends he had already started to get close to. ʿamm Shaʿban, Nadir's father was

believed to have the evil eye that jinxed everything and many of the jokes made around Nadir, and which seemed to upset him a lot, suggested that he had inherited the same evil eye from his father. ʿamm Shaʿban attempted a few times, according to one of the engineers, to get his son's salary on his behalf (but the administration refused) and Shaʿban's son is said to have also wanted the pay slip of his father to show his mother (Shaʿban's wife) the real salary he gets.

The second case is of Sheikh Waleed and his son Hassan. Their dynamics were different from ʿAm Shaʿban and Nadir, possibly because they had a less antagonistic relationship at home and Waleed was more popular on the shop-floor than Shaʿban. Hassan seemed to enjoy the privilege of working with his father more than the rest of the men (although he complained that he can't pretend to go home tired and be pampered because his father would say don't pretend that he was overworked we know the load is not so much). But this time it was Waleed, the father who was not happy about his son's presence on the machine, and asked that his son be moved to the other end of the shop-floor. Waleed was unhappy that he was blamed for his son's recklessness at work (Ismael was a poor crane operator) and that heads of shifts and engineers kept coming to him to say "look what your son has done".

The third case was of ʿAbd-Allah and his father ʿamm Yehia, who worked on the trimming machine but different shifts. ʿAbd-Allah and his father had a turbulent relationship at home already and it soon became gossip material for the entire shop-floor. ʿAbd-Allah's father was known to beat him and to interfere in ʿAbd-Allah's marriage. His attitude continued on the shop-floor, where he would ask around his bosses how he was doing and ridicule his son. ʿAbd-Allah revealed to me later that he felt that he was unable to establish friendships on the shop-floor because everybody knew his story with his father (although ʿAbd-Allah seemed equally involved in spreading it). ʿAbd-Allah was always accused of being lazy at work, and once insulted his boss causing a big upheaval in the mill. Many of the men complained to his father about his behaviour, which put their relationship under more strain. The entire shop-floor turned against ʿAbd-Allah. Everybody often repeated that if his father was not on the shop-floor, ʿAbd-Allah would have been fired instantly for his poor work ethic and for insulting his boss.

The presence of real fathers and sons on the shop-floor is not only annoying to the men in question but to others who work with them as well. One day, I heard workers talking about "the closet", "the room" etc... Some were arguing loudly over the "closet". When I enquired, some workers explained that there are two changing rooms for the workers in our mill. The first is a large room on

the ground floor for everybody. The closets there are made of wood and have no locks. The other is a room on the first floor that takes only twenty people, and has steel-made closets with locks and drawers, to which workers also added a collectively bought ceiling fan. The closets in the second room, used to previously be allocated to the heads of shifts. But with time, the heads of shifts, who were retiring used to give the keys of their closets to their friends and the room became widely accessed by permanent workers, regardless of their position. Three workers had recently retired. They gave their closets in the upper room to some of their co-workers, who in turn, did not use the closets. Shaʿban began persuading Mazen, who had just got a closet from a retiring worker but was not using it, to leave him the closet for Shaʿban's son. ʿAlaa, was one of the workers who got really annoyed by Shaʿban's suggestion to Mazen. He told me: "Shaʿban should not be allowed to give a closet to his son. This whole hiring of sons to work in the same mill is just wrong. It's a problem of management. It's a problem of engineers too, like Engineer Hamza, who is too weak to stand up for Shaʿban's practices." The production engineer had also given some young workers the permission to change in the upper room and a key to one closet of a retired worker to share among them. This made other permanent workers even angrier. Mazen said he worked 13 years here to get a closet up there. Similarly Hesham, another maintenance worker arguing loudly with the engineer, said he spent some 25 years in the mill and was never given a closet up there, while now the young ones come in and get to change in it directly.

No one suggested that the keys should be returned to the production engineer/management upon retirement, but they simply opposed the idea that the young ones be given closets in the upper room, and mostly if they were the sons of permanent workers. To defend himself, the production engineer said that when a whole shift changes in one space, they will start the shift on time. He also said young workers should be dealt with as equals or as colleagues. I found this ironic because the engineer was always of the opinion that young workers are never colleagues of the old ones, but have to do whatever extra work there is out of respect for elders.

Although the deployment of a fictive 'father and son' relation seems to imply good working relations based on respect, care, mentoring and exchange of skills for manual work, the closet arguments and the relations that real fathers and sons have on the shop-floor suggest that this fictive relation does not, in real life, deliver what it promises. The arguments over the closet highlight the dissatisfaction of some workers with the hiring of sons on the same shop-floor. They also relay the general confusion that the hiring of temporary workers, after 16 years of no new recruitment, caused

in the plant. The generational difference did not help in making clear whether temporary workers were meant to be 'peers' or 'subordinates'. The consistent lack of clarity in many plant policies, including what happens to a locker when a worker retires, makes the relation between old and young workers confusing, difficult to negotiate and dependent largely on the networks of permanent workers. The fact that management did not plan properly for the integration of new workers- no extra closets for them, no extra bus seats, not even overalls to wear at work- made the relation between both groups more strained and largely nepotistic.

VII.   Welcoming Exploitation

The way the 'father and son' relation is deployed by workers as a mutual exchange of technical expertise for manual work, which is essentially based on care and respect is, as we have seen in this chapter, not a very accurate description of the realities in which old and young workers are entangled. In fact, the presence of real fathers and sons on the shop-floors neither made the people in question nor the rest of the workers very comfortable. In addition, the manual work and the services, which young workers assisted the old generation with, exceed the old workers' transfers of expertise to them. However, the question remains: why then does the idiom of 'just like a father and son' still hold and is still deployed by both groups, including temporary workers, when it seems unfavourable to the young ones?

To answer this question we have to look in detail, as Bloch (1971) suggests, at the strategic and tactical use of the kinship term 'father and son'. The production engineer on the shop-floor always has stories to tell about how old permanent workers' use of *wāsta*- connections- to ask that their children, relatives, or *baladiyyāt*, be moved from one hard place on the shop-floor to another easier one. Engineer ʾIbrahim, ending one of the conversations with two young men over something I had not heard, said (and I overheard): "Listen I'll be honest, I'll take whoever's *wāsta* is stronger". Requesting a holiday, a sick leave or a visit to the doctor had to be approved by engineers, who would often take it back to the shift supervisor and consult with him. Simply put, having support from older workers in the plant- even more so from fathers- helps to facilitate the everyday matters and the 'big' matters. It is therefore important to have someone who can back up your claims and advance your position on the shop-floor. The permanent workers, who have connections, relations and information about the running of the plant, are therefore best to appease and embrace.

Permanent workers' growing control of the work, through their skill and relations, as chapter one has demonstrated, makes them particularly powerful as a group and not just as mediators with management. It is by making themselves part of the existing and expanding social networks of permanent workers, that temporary workers could advance therefore on the shop-floor. As chapter one has emphasised, with the neo-liberal restructuring of the plant, the work at EISCO increasingly depends on permanent workers' networks and relations. In addition, expanding relations was important to the way labour was valued overall in this plant. Acquiescing to the 'we are like father and son' idiom, thus, enables temporary workers to live by the values of the society that they are part of *and* to advance their interests. Yet, adopting this idiom meant the continuation of their exploitation at the hand of permanent workers. Similarly Kondo shows that workers could use 'the company as family' subversively against management in order to claim new rights, but in so doing, they also reproduced and legitimised management's control (Kondo, 1990).

Young workers on fixed-term temporary contracts did not, for a long time, have access to union membership and were largely unaware that they had no right to union membership. This is not surprising given how the union in the plant is known to be co-opted by management and thought to represent the latter's agenda. Young workers' need for older workers' support in acting as middle men when dealing with management is especially significant today, given the change in the politics of the plant from confrontation between workers and management, for example as in the case of the 1989 strikes and the ones that preceded it, to more individualistic type of direct negotiations between workers and engineers on the shop-floors as chapter six will demonstrate. This became especially apparent after the decentralisation of management that brought the engineers down on the shop-floor to manage everyday affairs and also with the overall reduction of the labour force that brought workers closer to management as chapter two demonstrates. In fact old workers seem to reminisce a lot about two things from the past, the *mulāḥizīn ʾakifāʾ* ('efficient supervisors'), who were able to negotiate with management and *al- muhandissīn bituʿ zamān* ('the engineers of the past'), *who* combined *ḥazim* ('firmness') with *ʿadl* ('fairness') and *igtimāʿiyya* ('sociability'). Older workers today take on the role played by unions, efficient shift supervisors and good managers that were known, or imagined to be known, to the plant in the past. They mediate between both management and the young groups of workers- whether directly or indirectly by giving the latter advice on how to go about doing things when asking for vacations, negotiating a pay cut and in general negotiating their rights and duties on the shop-floor.

Perhaps the reference to the exchange of *Khibra* for manual work is better understood by using the wider meanings of *Khibra*- i.e. *Khibra* of life, rather than *Khibra* of work in terms of technical skill. Shaʿban, the shrewd old worker, whose son is on the same shop-floor, asks the head of the mill if he could bring his son 'to take pictures' during a retirement party attended by engineers and senior workers only. To allow the son to expand on his relations with those in power is one way to make sure that his son will be able to capitalise on these relationships when he needs them. With the young men's prospect of contract renewal, or acquiring a contract altogether, still uncertain during my fieldwork and the 'hope for stability' that temporary workers expressed always there, good relations with the father figures on the shop-floor are deemed important. For many of the young workers, the job is a *mustaqbal* ('future') as they have repeatedly told me. Maintaining good relations with the old guard who could help them secure 'their future' in such uncertain times is definitely worth the price of preparing a cup of tea every day.

VIII.　　Conclusion

With the recruitment of temporary workers, permanent workers' skills are individualised and their collective knowledge is turned from implicit to explicit. The latter are consenting to the gradual and long-term phasing out of their work because the new workers are their sons, relatives and *baladiyyāt*. These familial relations allow the plant to exploit workers' skills and social relations and generate surplus without investing in capital and machine renewal. Yet the security of permanent employment, given the strategic interest of the plant to the regime and that temporary workers eventually gained permanent contracts, suggest that permanent and temporary workers cannot be seen as two distinct classes. Unlike, the case described by Sanchez (2011) where, familial relationships obscure the casualisation of the labour force in the Tata factory, here the familial relationships successfully reproduce the labour aristocracy. The most important distinction between the labour aristocracy and proletariat remains, not between permanent and temporary workers at EISCO, but between those inside the citadel and those who are the sons of the soils who cannot secure work inside EISCO.

However, the distinction between those inside and outside the plant is only ephemeral. As chapter four and five will demonstrate, the number of jobs offered to workers' children does not meet their huge demand for jobs. EISCO's labour aristocracy is therefore likely to be fragmented on the long

term between those who are successfully reproducing their material gains and those not. The widespread family idiom of 'fathers and sons' deployed in EISCO obscures the inequalities in the loads of work allocated to permanent and temporary workers. By contributing to the politics of kinship relations between both groups, the 'fathers and sons' idiom in turn conceals the differences between the permanent workers who reproduce their class positioning and those who fail to do so.

Chapter Four: Daily-Waged Workers, ʾistqrār ('Stability') and the Politics of Hope

I. Introduction

Ghubar al-ʿamal khayr min zaʿfarān al-baṭāla

('The dust of work is better than the saffron of unemployment')

Most people working at EISCO would probably find the above-mentioned management message, which is placed on a large sign by the entrance of the Industrial Relations building, rather propagandist and silly. However, to those who man al-kilar – *a section of the blast furnace whose Arabic name derives from the English word 'killer' –   it is an accurate reflection of work and life conditions.*

The experience of being on such a gigantic blast furnace, the landmark structure of steel plants around the world, is humbling and awe-inducing to say the least. Witnessing the orange pig iron bursting out of the blast furnace like fire from a dragon's mouth can give those nearby a prolonged adrenaline rush. Yet, surprisingly, it wasn't the size and power of the furnace that left a major impression on me when I visited it. Instead, it was al-kilar *that haunted me for the rest of the day, and perhaps the rest of my research. al-Kilar is the underground area twenty meters beneath the blast furnace, where the reddish crushed raw materials (iron ore, coke and limestone sinter) are delivered from the sintering department. From there they are pumped upwards into the very top of the blast furnace. The underground area is filled with piles of red dust, making breathing and visibility difficult. Red dust is an integral part of the persona of al-kilar workers at EISCO. Underground, it mutes their identities by making them indistinguishable from one another. Above ground, their red overalls make them highly conspicuous as those at the very bottom of the 'blue collar' hierarchy.*

The head engineer of the blast furnace explained that a large fan was used to clear the accumulated dust by blowing it into sewage pumps, which took it outside the plant. But the fan broke down many years ago and was never repaired, despite repeated calls on management to invest capital in renovating it. Daily-waged workers today undertake the work done previously by the fan: sweeping the dust, inhaling it in the process; a job that permanent workers gladly relinquished when daily

workers joined the plant. It was at al-kilar *that the working lives of daily-waged workers first presented themselves as distinct from the rest of the workforce. It was also perhaps* al-kilar *that inspired management to formulate the value of work in such devious and silly terms that appear on a large sign at the centre of the plant.*

"Why would anyone accept such a job?" I asked myself, rather naïvely. At 11 Egyptian pounds a day (1.1 GBP; at time of writing 10 EGP= 1 GBP) daily wages at EISCO were significantly less than those in a wide array of jobs outside the plant. During my fieldwork, from November 2008 to August 2010, an agricultural labourer could earn 35 Egyptian pounds a day; working in a workshop or on a construction site paid about 50 Egyptian pounds a day, and those doing more technical work, such as electrical fitters, were paid up to 80 Egyptian pounds a day. The strikingly low daily wages at EISCO could not have motivated daily workers to work under such rough conditions. "*Shaghālīn ʿala ʾamal al-ʿaqd*" – "we are working [here] in the hope of [getting] a contract," was the explanation that Tarek, a daily-waged worker at *al-kilar,* gave me as to why he was toiling at EISCO; an explanation that others repeated over and over throughout the research. Daily workers also repeatedly used the words *ʾistqrār* ('stability') and *mustqbal* ('a future') in describing what securing a temporary fixed-term contract, which they hoped would eventually be turned into a permanent contract, meant for them. Understanding what work at EISCO means to those trying to enter this citadel helps explain what it means to the stable workforce already inside its gates. Furthermore, the plant's steep hierarchy of labour sheds light on the state's multi-layered attempts to control the workforce.

II. Aspirations, the Value of Work and Stability

Daily workers are at the very bottom of the labour hierarchy at EISCO, below both permanent-contract workers and temporary fixed-term contract workers. The lack of security in their work, the nature of the tasks they are allocated and their isolation from everyday social contact on the shop-floors speak of their unfavourable position in the production and labour process. Daily workers often convey their resulting sense of humiliation and frustration. Beyond their status in the labour hierarchy, this chapter argues that the backgrounds of daily workers, along with their hopes, desires and aspirations, are integral to their experience of work. As various ethnographers of work and labour have emphasised, the experience of work cannot be fully understood only by examining interactions within the workplace. The manner in which the sphere of labour is related with spheres of the

neighbourhood and family are integral to how work is both organised and experienced (De Neve, 2004, 2008; Engelshoven, 2000; T. K. Hareven, 1982; Haynes, 2000; Kalb, 1997; Dorienne K. Kondo, 1990; Mollona, 2005b, 2005b; Ong, 1987; Jonathan Parry, 2001, 2005). Factory work is thus best conceived of "as a 'total fact', part of the broader labour of the self valorisation and reproduction of society"(Mollona, 2009a, p. 2). Recognition of the importance of workers' aspirations, hopes and desires enables us to focus on the experiential aspects of work rather than the material division of labour only. This emphasis on the experiential, in turn, captures the ways in which labour is valorised and the priorities of social reproduction are arranged. I investigate how the capitalist state manipulates the resulting values by entangling workers within dispossessing economic policies. Through exploring this entanglement of economy and economics, society and the market, base and capital (Gudeman, 2008), this chapter examines the vexing and traumatising experiences of many daily workers at EISCO.

In the third chapter of this thesis, I examined the 'father and son' relation that permanent-contract workers and temporary-contract workers claim has developed between them. Permanent workers use this fictive kinship relation to compel young temporary workers to do the manual work, which is increasing due to the decay of machinery under the neo-liberal spending cuts. However, temporary-contract workers also adopt and reproduce the discourse of 'father and son' because they rely on permanent workers to mediate negotiations with managers and for the allocation of everyday work. Similarly, one could argue here that daily workers accept working under rough conditions and being ostracised from social integration in the plant because they aspire to become part of that very group of temporary and permanent workers that currently excludes them. Yet, if the analysis were to stop there, it would miss a large part of the experiential aspect of work, which structures and gives wider meaning to a worker's life. Instead of taking for granted that social mobility is necessarily desired by all workers and is an inevitable product of the need for 'things' produced by capitalism, it can be unpacked and seen in the light of the complex hierarchal and class relations in the community. In fact, studies such as that of Willis (1977) remind us that not all working class children want to move upward, socially speaking. As Sennett and Cobb (1972) have argued, it is not enough to assume that upward mobility is self-explanatory. On the contrary, potential anxieties associated with upward mobility suggest that we need to better understand what is at stake, beyond material wellbeing, when moving upward in the social hierarchy – including how people earn respect and admiration in society (Sennett and Cobb, 1972).

Hopes and desires for *'istqrār* ('stability'), which workers describe as the main goal of their work, are related to broader ways in which work is valued and people earn respect in Egyptian working class communities. I argue that *'istqrār* enables workers to expand on their relations in the community, whether by marrying and reproducing or by earning respect from fulfilling their obligations to the household and community. *'istqrār* is one way to express the value of 'relationality' that Elyachar (2005) argues is essential to the community of popular classes. By being *mustaqir* (the agent from the noun *'istqrār)*, workers, especially permanent workers, speak of having a *makāna* ('status') and *qīma* ('value') in the community. Working at EISCO and being *mustaqir* is best represented by 'Alaa's comment that he first came to the plant in slippers (*shibshib zanuba*) and by working there had become a *bey* ('a person of high rank'). Stability, however, is also manipulated by the capitalist state, in its attempts to govern populations. EISCO capitalises on workers' valuation of *'istqrār* by dividing the current permanent workforce into those who can secure contracts for their children and those who cannot. The very existence of daily workers at EISCO, most of whose fathers work in the plant and yet were unable to secure even temporary contracts for them, highlights how this process of labour fragmentation follows lines valued most by the workers.

Understanding the work experience of daily workers from the perspective of their hopes and aspirations, and not only their present conditions, is particularly helpful for two reasons. Firstly, aspirations enable us to link different aspects of a person's life into an encompassing experience without struggling with reified spatial delineations of concepts such as the productive and reproductive, production and consumption, material and affective, and so forth. Secondly, and most importantly, it enables us to pose larger "Zafimaniry" type questions (Astuti, Parry, & Stafford, 2007) about how workers value their own work and why they work at all. Drawing on the work of Graeber (2001), Harris (2007) argues that "a satisfactory understanding of the nature of work requires a broader understanding of value" (Harris, 2007, p. 137). In what follows, I look at the need for 'stability', a goal which is pursued through labour at EISCO and is represented in work contracts that act as media or tokens of value, whose circulation enables the realisation of the value of stability. The value of stability, in turn, is one way to express the value of relations in the community.

Research into value is particularly relevant to understanding work because it highlights the relation between how work acquires meaning in people's lives and the multi-faceted ways in which capitalism extracts surplus by manipulating these meanings. As Foster (2008, p.10) argues: "the problem that appeared so clear to Marx – the eternal need of capitalists to secure competitive

advantage through constant innovation – is solved not by changing the means of production but by changing how meaning is produced, or how the relationship between persons and things is construed and managed". Anthropologists investigating value have followed Marx and Engels (1970) in *the German Ideology* in conceiving production as "a self-transforming social praxis" (Turner, 2008, p. 44), which is based on four simultaneous 'moments' involving the production of goods, needs, people and social relations (Graeber, 2001, 2007; Mollona, 2005b; Turner, 2008). Turner elaborates on these moments and shows that they include:

> "The production of means of material subsistence, including tools and techniques; the production of new needs, which give rise to social relations; the production of human beings themselves (to this they add parenthetically 'the relation between husband and wife, parents and children, the family', in other words, kinship); and the production of the different relations of social cooperation involved as a 'productive force' in their own right as part of each historical mode of production" (Turner, 2008, pp. 44–45).

These four moments in turn allow us to look at production as a 'total fact' and conceive of labour as a process and set of relations, and not only as labour power. The literature on value focuses particularly on how needs are created in relation to the other facets of production. Thus Turner (2008) argues, what counts as production in any society, is inseparable from how it defines the need (or needs) that serve as the cornerstone of its productive activities. Needs, he suggests, are given the least attention within the four moments, although Marx looked at one "meta need", which is the need for accumulation of capital. But Turner (2008) argues that most needs function in a similar way to the meta need identified by Marx; that is, needs are identified within a relationship of exploitation in which a category, group, or class which has control over important means of production uses its control to generate a surplus from the labour of those that are under its control. In a manner similar to Foster (2008), Turner (2008, p. 45) suggests that "in many, if not all societies, this surplus tends to be appropriated, not merely as a brute product, but in a form of value".

Thus, by returning to Marx's original conception of value, Turner argues that Marx did not conceive of value as a "positive, inherent property of labour invented in products" which was the essence of Marx's critique of classical political economy, but that he thought of it as a "relational aspect of a structure of interdependent productive activities" (Turner 2008, p. 46). Marx, Turner explains further, formulated the problem of value in structural terms, as the question of why, in capitalism, value is a form of representation of labour. Turner thus reminds us, following Elson (1979),

that Marx created not a "labour theory of value" but "a value theory of labour" (Elson 1979). Value is thus the "internal relation of quantitatively contrasting forms of appearance among entities sharing a qualitatively identical essence, where the essence, content is socially necessary labour time and the form consists of contrasts among different proportions of that content embodied by different products of the same system or social totality" (Turner 2008, p. 47). But leaving value as such, Turner argues, does not take into account how it relates to what Marx calls the 'value relation'; and as constituting systems of social production consists "essentially of forms of representation, and therefore requires to be defined and analysed in each ethnographic case by taking account of the system of collective representations or media by means of which it is defined and circulated" (Turner 2008:47). Turner is exploring what makes value different from needs. Any need in any activity may then be considered part of the set of needs that determines the distribution of labour and is hence considered part of the 'value relation' of the system under research. All forms of labour in this case, including domestic labour and the otherwise unproductive labour of soldiers, would be considered as 'productive labour' to the extent that it constitutes part of the 'value relation' of the capitalist system. Yet, Turner suggests that what defines the activities that are 'productive', in the sense of producing value, from those that are not is the "the recognition of the indispensable role of representation and semiotic media defining what activities count as productive" (Turner 2008, p. 48).

Graeber (2001) builds on Turner's (1984) earlier work on value and the work of Munn (1986, p. 3) in which she considers people attempting to create value as seeking "to create the value [they] regard as essential to community viability". Graeber expands on the concept of labour to involve praxis, thus potentially including any type of action, and formulates value "as the importance of action". Accordingly, value is then conceived of as "the way people represent their own actions to themselves…it can only happen through that importance being recognised by someone else" (Graeber 2001, p.45). He finds that "value is realised in the public, communal spheres, in the form of concrete circulating media of value" adding that they are "refractions of the most basic forms of value created in the domestic sphere at the same time as they are realised within institutions that are modeled on key relations through which those forms of value are created" (Graeber, 2001 p.71). Following Graeber, I analyse labour in the broader sense of action or praxis, and highlight how daily workers value their own actions and realise it in the larger institutions they are part of, including EISCO.

Daily workers ascribe to their work a value they call *'Istiqrār* ('stability'). It is also a value shared by EISCO's contracted labour force, including both permanent and temporary workers. The value of

ʾIstiqrār is widely appreciated in Egyptian public enterprises, whose historical developments and work culture cannot be understood separately from the permanent contracts offered their inception in the 1950s. The discourse of work as stability is particularly common among permanent workers, who have benefited the most from the durability of their contracts in reproducing the conditions of a good life in the long term, especially in the context of the household. It is remarkable that stability is also the term that workers and most working class Egyptians use to refer to getting married and establishing one's own household. Stability, in essence, is about being able to sustain relationships, including reproductive ones. Being *mustaqir*, stable and settled, enables one to invest in long-term relationships in the community and to invest, not in short-term gains but in longer-term ones[50]. It is thus interesting that reference to 'a future' is always used in tandem with reference to 'stability' by daily workers and temporary workers alike in describing what working at EISCO means to them.

This value of ʾIstiqrār and the meaning it gives to work is then used by capitalist and state forces in multiple ways to generate surplus. For example, HSBC bank in Egypt has created a Mutual Fund for owners of 10,000 EGP or more to invest in the biggest 20 Egyptian companies in the stock market, which they called 'Estikrar' (which is another way to transliterate *ʾistiqrār)*. Although the previous example illustrates the point anecdotally, it does highlight how capitalism manages to continue extracting surplus from labour by re-deploying the meaning of labour and the values that people give to it. Similarly Elyachar (2005) explains how under neo-liberal rule there is an increased convergence between the capacities of the Egyptian popular classes and the aims of neo-liberal rule, which capitalises on these capacities. Her ethnography distinguishes exchanges made between workshop masters and customers based on money, referring to them as business relationships (*b-il-bizniss)* and relationships based on *gadʿana,* which "drew on and reproduced the value of neighbourly relations" (Elyachar 2005, p.137).

Stability, is thus both a value and a mode of "governmentality" (Foucault, 1991) which enables the capitalist state to maintain power and extract surplus from labour. Foucault defines governmentality as "the ensemble formed by the institutions, procedures, analyses, and reflections, the calculations and tactics that allow the exercise of this very specific albeit complex form of power, which has at its target population, as its principal form of knowledge political economy and as its

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[50]   *ʾistiqrār* is defined, among other things, by the *Dictionary of Modern Written Arabic* as "stability", "settled-ness", "remaining", "constancy", "continuance", "permanency", "stabilization", "strengthening", "consolidation" (Wehr and Cowan, 1979). The different meanings of *ʾistiqrār* all capture the focus on the long term.

essential technical means apparatuses of security" (Foucault, 1980, p. 102). Foucault sees the modern state, then, as one type within the ongoing evolution of forms of governmentality over history. In Egypt, stability was an idiom that Mubarak appropriated for himself, when describing support for his rule as choosing stability over chaos. Mubarak's legacy became this very stability (Chick, 2011; "Mubarak Had Been Egypt's Symbol of Stability For Years," n.d., "The bloody price of Mubarak 'stability'," n.d.). His use of 'stability' expressed an ability to maintain production (i.e. prosperity), control over 'terrorist' activities both domestically and abroad, and the cessation of war and maintenance of 'peace' in the region.[51]

In examining state invocations of stability, we need to bear in mind the limitations in analysing the state as a coherent project whose actors are imbued with intentionality. Rather, the state must be conceived of both as it is imagined, as it comes into being through the practice and production of everyday forms. Gupta and Ferguson (2002, p. 984) argue that "because state practices are complicated with spatial orders and metaphors, an analysis of the imaginary of the state must include not only explicit discursive representations of the state, but also implicit, un-marked, signifying practices". These mundane practices, they remind us, "often slip below the threshold of discursivity but profoundly alter how bodies are oriented, how lives are lived and how subjects are formed" (Gupta and Ferguson 2002:984). Similarly, governmentality has been criticised for its totalising conception, leading some anthropologists to argue that "we need to start approaching "governmentality" itself as a practice rather than a concept" (Elyachar 2005, p.93) and to focus on the sites where practices of governmentality are deployed and the forms of power that emerge at intersections between the state and other institutions (Coronil, 1997 in Elyachar, 2005).

The practices that reproduce the image of the state as a protector of stability can be located across different institutions, including the workplace and the household. The latter is particularly interesting, because as Foucault suggests, the arts of government are multiple, including, "the art of self-government, which is connected to morality, the government of the family, which belongs to the economy, and finally the science of governing the state which concerns politics"; he adds that the art of government is "thus characterised by the continuity of one style of government with the other"

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[51]   Stability became even further disputed following the January 2011 Revolution. In the March 2011 referendum, the military council then in charge, promoted amending the old constitution, as opposed to drafting an altogether new one, in the name of a return to 'stability'. This option was also supported by Islamist forces advocating to keep Article 2, which states that the principles of Sharia Law are a main source of legislation. Many secular forces instead demanded a completely new constitution. The referendum passed with 77% preferring to merely amend the old constitution, with a large number of people saying they voted for 'stability'.

(Foucault 1991, p.90). Foucault conceives of most relations, including those within the family, as encompassed within the governmentality of the state. The struggle for stability then links practices of the state, in governing populations, with the practices of EISCO households, who aspire to socially reproduce. Subjugation occurs when the hegemonic and the intimate are intertwined. Population then is the "ultimate end of government" and "the subject of needs, of aspirations, but it is also the object in the hands of government, aware, vis a vis the government, of what it wants, but ignorant of what is being done to it" (Foucault, 1991 p.103). The spatialised practices of the bureaucratic state, the workplace and the household enable the intimate and relational politics of stability to constitute a form of governmentality that reproduces the state hegemony and its "vertical imaginations" (Gupta and Ferguson, 2002).

Stability is thus a means by which the Egyptian state maintains government and continues to extract surplus from workers in public enterprises by indirectly manipulating their hopes and aspirations. Permanent EISCO workers, who hope to reproduce the conditions of a good life and achieve stability, reproduce the hegemonic discourse of the state as a provider of stability. This in turn happens at the expense of their ability to maintain themselves as a group of artisans with control over the shop-floor and a status in the community, and sets a long-term distinction between those able to become bourgoesified by securing permanent contracts for their offspring, and those who eventually lose out and face precarious proletarian conditions.

In popular culture, hope is often contrasted with despair. But the uncertainty inherent in hope as a source of major stress in many people's lives is often overlooked. Hoping for the best but preparing for the worst, as the proverb suggests, is a difficult combination that strains people in general. For those who are 'one foot in and one foot out' of the EISCO citadel, hope is a source of anxiety. Vincent Carpanzano suggests that hope should be considered as a "category of social and psychological analysis" (Carpanzano, 2003 in Miyazaki, 2006 p.147). Carpanzano argues that unlike desire, hope is "rarely mentioned and certainly not in a systematic or analytical way" in social and psychological sciences (Carpanzano, 2003 in Miyazaki, 2006 p.147). He suggests that we ought to "destabilise and complicate the category of hope" by studying it in different cultural, historical and social locales, thus "defamiliarising" the term (Carpanzano, 2003 in Miyazaki, 2006 p.147). Similarly, Miyazaki argues that the most critical aspect of hope is its ability to reorient knowledge. He is interested in "how certain economic concepts and neo-liberal ideas may serve as sources of hope that is a reorientation of knowledge" (Miyazaki, 2006 p.151). Given the precarious neo-liberal living and

working conditions outside EISCO, the ability of some daily workers to turn their contracts into temporary ones has channelled the hopes and aspirations of others to wait for their own contracts.

At the Bihlai Steel Plant studied by Jonathan Parry, casual workers and permanent workers are two different classes, with distinct living and working conditions, aspirations and imaginations of time (Parry n.d.). In contrast, at the Tata factory studied by Sanchez (2011), the fact that most casual workers – who represent 70-80% of the workplace and have thus replaced the old permanent labour aristocracy – are the sons of permanent workers disguises the 'unmaking' of the labour aristocracy. At EISCO, the fragmentation and phasing out of the workforce happens in a more complex manner. The arrangement of new workers in a hierarchy based on a queue leading to the possibility of a permanent contract disguises the fact that permanent labour is being slowly replaced by that of young, cheaper workers and is divided according to the ability to bequeath jobs to children. The few successful cases of workers bequeathing their contracts to children in turn discourages permanent workers from protesting against the long-term undermining of their solidarities and the individualisation and privatisation of their skills. The most salient class distinction that appears in the short term, however, is that between those already inside the citadel and the casual workers on the fringes of the city.

The expression ʿala ʾamal, which daily workers use when speaking of their hope for contracts, translates in English into "in the hope of", and suggests an element of time and a process of waiting for one's aspirations to materialise. It is different from the expression ʿandi ʾamal "I have hope", which is associated with a rather shorter delineation of time. ʿala ʾamal is also always used to complement a verb denoting action in the sentence; for example, *working* in the hope of, *calling* in the hope of, *having tried* in the hope of. It suggests an element of effort required in order to make one's aspirations come true. As daily workers remarked, exerting effort while waiting for one's hope to materialise without being sure of the outcome is an agonising process. Patience seems to be the element that eases this process. Patience is one of the virtues highly praised in both Islamic texts and popular Egyptian culture. It was not uncommon to see writings by workers on the walls and the machinery of our shop-floor with expressions such as "God is with those who have patience", or "Patience is (morally) beautiful".

Different groups are thus engaged in maintaining what can be called the 'politics of hope', including, families using the virtues of 'patience' to compel young workers to keep working in the plant, and state and company management employing tactics that propel workers to endure unstable

work conditions. This contributes to sustaining both daily workers' hopes for a job *and* the suffering and vexation that come with those hopes. I therefore situate the changes in production relations that took place with neo-liberal reforms beyond the fixed dichotomies of neo-liberal fragmentation and the resulting collective action. This corresponds with the overall aim of this thesis to deconstruct essentialised notions of the homogenous working class, and to suggest that an examination of internal labour values and dynamics could give a nuanced account, beyond the dialectics of resistance and fragmentation, of how hegemonic governing practices take shape in everyday life.

III. Daily Workers, Different but the Same

As mentioned in chapter three, daily waged labour was introduced at EISCO in 2007, in addition to permanent and temporary work, in order to accommodate the overwhelming demand for jobs. Daily-waged work thus became an entry route for those unable to secure temporary contracts because of the need for strong *wāsta*-connections. They were encouraged to join as daily workers and thereby to obtain temporary contracts within 'a few months' – which in practice ranged from two months to two years. During this undefined waiting period, many workers were repeatedly promised contracts by the end of the following month, but such promises were often broken. As the waiting period grew longer, many started doubting whether they would ever receive a contract. This inability to predict on what basis contracts were allocated rendered the process of hoping for a job increasingly frustrating, adding to the daily frustration of being at the bottom of the labour hierarchy and filling the most degrading and hazardous jobs.

During fieldwork, I noted a certain awkward silence whenever I brought up the question of daily workers. Daily workers' presence at EISCO seemed to make managers and workers throughout the hierarchy uncomfortable – either because they were self-conscious of their comparatively privileged position, or because some did not consider them an integral part of the plant, and thus not worthy of research. Daily workers were also not accounted for in plant statistics, although in the new CEO's speech in February 2010, promising all daily workers temporary contracts, he estimated them at 800. I could not confirm this number, as given the sheer size of the plant and their distribution across different mills and shop-floors. Daily workers are not entitled to the health and social insurance, union membership or other benefits (including a monthly meal costing nominally up to 95 pounds (9.5 GBP), company summer trips, and various loans and grants) received by both temporary and permanent

workers. Coming from the same towns and villages as other workers, daily workers are allowed to take the company buses, but may only sit after all others are seated. Daily workers were EISCO's hidden reserve army of labour, integral to its politics of work and reproduction and yet concealed from official discourses and organisation.

Daily workers were also difficult to identify on shop-floors since they often worked in underground areas, or were divided into groups of two or three among different shifts of temporary and permanent workers. They often rotated at work and did not do the same chores every day. Shams, a daily worker in the shipment area of the Plate- and Sheet- Rolling Mill, explained that "they call for us in the area that needs work and we go". They were also initially difficult to distinguish visually from temporary workers, who at the time of my research had not yet been given company overalls. However, unlike temporary workers, who are contracted on a six or twelve monthly basis, daily workers are contracted by the daily, though they receive their pay monthly. In contrast to other workers, they are not paid at the end of the month, but receive pay checks one or two weeks into the following month. They are also not contracted by the company directly, but by the plant's social and sporting club, which plays the role of labour contractor, and subtracts one Egyptian pound from their daily wage. This limited type of outsourcing within EISCO attests to the interdependence between organised workplaces and paralegal labour, which often co-exist in the same time-space.

During my fieldwork, daily workers' wages in the plant varied between a standard 14 Egyptian pounds/day (approximately 1.4 GBP/day) and 22 Egyptian pounds for the more skilled (such as welders), although the former was an increase from the original standard wage of 11EGP/Day (1 GBP/day) when I first came to the plant in February 2009. Daily workers were contracted for no more than 22 days a month, which made their total average expected salaries between 308 and 484 Egyptian pounds. Temporary workers, however, earned almost twice as much as daily workers. Their salaries were between 650-800 EGP depending on their educational qualifications, which ranged from preparatory degrees to 3 or 5 years' industrial training. The average salary of a permanent worker on the Plate- and Sheet-Rolling Mill ranged from 1500-4000 EGP.[52] Many daily workers spoke of depending on their fathers, or on their mothers in the case of a deceased father, to cover their personal expenses, something they saw as making them unable to transition to adulthood. The hope

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[52]   Many daily workers took on part-time jobs outside the plant, including running mobile-phone shops, working in a workshop or as carpenters, electricians and construction workers. However, as Hamdan, one of the daily workers in our mill, who also worked part-time with an electrician and in the construction sector, explained: "it's hard to have a well-paid daily job outside EISCO, because the high-paid ones require a lot of effort, which makes us unable to keep up with both jobs".

for job stability was thus also a hope for coming of age and a necessary measure of independence from parents.

It is important to note however that those who came to work as daily labourers at EISCO were on average better off than daily workers across the rest of Egypt. 'Amgad, a daily worker who had also assisted me with research outside the plant, explained that no one would venture to try their luck at EISCO unless they knew they had a connection that might get them in. The rest, he believed, did not think it was even worth attempting. Another old worker echoed 'Amgad's explanation when I was commenting on the precarious work conditions daily workers endured: "those who come here are the lucky ones who know somebody that brought them here and promised to help them. The rest of the kids are all outside. Look at the 6th of October [City -an area known for proliferation of private sector enterprises] that is the real youth cemetery" he explained. When interviewing casual workers outside EISCO, who were among the original 'sons of the soil' and lived in informal housing called *biyūt ahāli* (family housing) surrounding the company town , I was told repeatedly that they do not even apply for daily work at EISCO, as that would require strong connections inside the plant. Those who do get daily work, like Ali, a casual worker in a nearby painting workshop, are easily discouraged by the nepotistic calculations involved in securing a contract at EISCO, lose hope while waiting for it to materialise, and thus quit after a few months. In addition, casual workers, who often do not have a parent belonging to the labour aristocracy who could support them while on such low wages, end up exhausted from maintaining two parallel jobs. They instead prefer to maintain one daily job with longer hours and higher pay, without interrupting it with the low-paid work at EISCO. Daily workers at EISCO were thus frequently not *daily workers* in the usual sense.

One thing that was striking about daily workers at EISCO is that in general their backgrounds and qualifications were no different from those of the newly recruited temporary workers. Most daily workers had an industrial middle qualification (often from the industrial training centre of EISCO), which is the minimum requirement for employment at a temporary job at EISCO. They are also below the age of 26, which is the maximum age for the plant puts for recruitment. They are often sons of permanent workers, or direct relatives, which is the undisclosed criterion for recruiting workers at EISCO. Out of 16 daily workers in the Plate- and Sheet-Rolling Mill, 11 had industrial diplomas. The rest had commerce and agriculture middle qualifications, and one was a university graduate. All of those who had degrees other than industrial diplomas, however, denied the necessity of any education beyond preparatory level to be considered for by EISCO. 14 out of 16 were below the age of 26. 10

(out of 15, because of one abstention) had fathers working in the plant, two had an uncle at the plant, and three were recruited through their *baladiyyāt*. Similarly, at the Coil-Rolling Mill, out of 13 daily workers at the mill, six had fathers in the plant, five had direct relatives there (uncle, brother, in-law) and two were employed by a labour contractor (of whom one had a father who had retired from the plant).

The fact that most daily workers had the same backgrounds and qualifications as temporary workers plays an important role in the analysis of their experience at EISCO. Daily workers could not secure a contract simply because their connections were not strong enough. There was no 'made up' criterion to cover up the unfair allocation of jobs at EISCO. Many people across Egypt, and around the world, have recourse to family connections in the process of securing jobs. This was certainly the case at EISCO, where fathers in particular had always played a major role in recruiting their children at the plant. However, as mentioned in the previous chapter, many permanent workers actually perceived the employment of their children in the plant as an unquestionable right, justified by the labour they had put in and part of their conception of their contracts as "a quasi-property right" (Parry, n.d.). If a father or a mother was a legitimate source of plant recruitment, daily workers were then being discriminated against by the very recruitment standards that the state had legitimised. This was, however, a particular kind of discrimination that was not based on any 'objective' criterion, but rather on one which commoditised the intimate, relational, emotional and social labour within structures of bureaucratic standards and practices. This embeddedness of the social in the economic contributed to daily workers' sense of personal hurt, insult and exasperation for working under unfair rules at the plant.

As suggested above, the networks of relatedness that daily workers share with contracted EISCO workers have a wider significance beyond simply being available resource-pooling reservoirs. This is for instance, manifested through the pressure to maintain and reproduce the social positions their fathers and kinsmen have acquired by working in the plant. In chapter five, I argue that working at EISCO fuelled middle class aspirations that had emerged among many permanent EISCO workers. By virtue of their relations with permanent EISCO workers, many daily workers have become part of this larger project of producing 'middle class workers'. Their own aspirations for a stable job at EISCO and a 'future' should be seen in the light of these ongoing pressures.

Hamdy's story is an extreme case that may illustrate these tensions. Hamdy had a university degree in commerce. His father was a permanent worker at EISCO. Hamdy was married with two children, and came to work at EISCO after failing to get a well-paid job elsewhere. He had worked previously in the university administration for 300 EGP a month, but quit that job because he found that even hanging out at the local coffee shop with neighbours was more promising than working for 300 EGP/month because of the opportunities for moonlighting and for the expansion of relations that the social contact offered. Throughout, Hamdy's father had given him and his family a monthly allowance to live by, including when doing daily work at EISCO. Hamdy also lived with his father, on the upper floor of the house his father had built for the family in Helwan. His sister had become a successful doctor and had married a pharmacist, and her father had opened a private clinic for her in the same building. Hamdy told me he was frustrated that he had to depend on his father at his age, having already established his own family. Not only was he unable to fulfil the widespread social expectation of masculinity by becoming a bread-winner, but his inability to keep up with the social mobility of his family also added to his sense of inferiority.

Securing a contract was very important for Hamdy's sense of independence from his father and for his move into adulthood and manhood, but doing so was equally a question of being able to foster the network of relatedness and the webs of relations within which he was embedded, which in turn contributed to his ability to establish his 'value' (*qima)* within his family and his community. The awaited, yet so far unmet, *ʾistiqrār* ('stability') to which Hamdy and other daily workers aspired should be understood in the light of their position relative to permanent workers. The process by which working under rough conditions and being unable to meet wider societal aspirations produced an intense sense of frustration and humiliation for daily workers is inseparable from the social networks they are part of and the way labour is valued in these structures and institutions.

IV. Alienation and Dispossession on the Shop-floor

A head of a mill explained to me in an interview the difference between the types of work done by temporary and daily workers: "Temporary workers do the technical work, [*aʿmāl fanniyya*], which is allocated according to the workers' educational specialisation". In contrast, the engineer continued, "daily workers are normal workers, not technical workers [*ʿimāla ʿādiyya mush fanniyya*]. They do work such as cleaning [*nadāfa*] and [*ʿitāla*]". In the first chapter, I showed how cuts in public spending

prescribed by the neo-liberal reform program inhibit the plant from investing in renewing its machinery, thus increasing the load of manual work in the plant, which is taken on by a younger generation of workers. The work requiring most technical expertise is generally done by members of the older generation at the top of the work hierarchy, while manual work done by temporary workers is conducted in exchange for technical expertise from the old. ʿitāla work is the more degrading type of manual work at the very bottom of the work hierarchy, which is seldom exchanged for technical expertise.

Although there were no daily workers at the 3-high rolling mill where my research was focused, daily workers were present across our shop-floor doing jobs that ranged from largely ʿitāla work to occasionally more skilled work. Daily workers carried away the steel leftovers, managed trucks coming into the shipment area, cleaned underground water tunnels beneath the machinery, worked in the maintenance workshops, or, in the case of those with top-end industrial training specialisation, focused on welding. Although daily workers had the potential for doing work similar to that of temporary workers, some permanent workers nevertheless considered investing knowledge in daily workers futile because they were not sure if they would ever become stable workers. Their ephemeral presence on the shop-floor thus excluded daily workers from the long-term exchanges and circulation of labour and skill.

The alienation they experienced was perhaps most evident in the disdain with which ʿitāla work was treated on the shop-floor. Everybody wanted to escape ʿitāla work. One of the daily-waged welders I spoke to on another occasion was from the general maintenance workshop of the plant. He explained to me that they were divided into three groups: welders, fitters and ʿattālin (plural for ʿatāl). "I don't do ʿitāla work, I only do the work related to me (welding). Sometimes, I happen to carry a load, or when a ʿatāl is off I do his work. But I don't do ʿitāla work" He told me. Although it could be negotiated, nobody escaped ʿitāla work completely. The three daily workers in one of the maintenance workshops on the shop-floor were called in when visiting engineers were asking for cleaning workers (ʿummāl nadāfa), to which one of the engineers in our shop-floor replied, "get one of the children to carry this". Hamdy, when filling in the survey I distributed to workers across the mill, insisted on writing, under 'job description',' ʿatāl' in large letters (not 'daily worker', as all the rest did). In the following question, under 'education', he wrote 'university degree'. The contrast was ironic and sad. In a sense, ʿitāla is the very antithesis of skilled work, the latter giving workers control over their labour and, with the stability of permanent contracts, enabled them to expand on relations

inside and outside the plant. As the fieldwork of Mollona (2005, p. 186) in a Sheffield steel plant reminds us, "material differences among workers are sometimes discussed in terms of attitudes to machinery and generational struggles".

On another occasion, ʾAmgad told me, "here the old one acts as if he owns the company and the contractor [i.e. the daily worker] is nothing". The distinction between skilled work and ʾitāla work, or between the owner of the work and the proletarian labour force, is thus a way to articulate the kind of differences in status between old permanent workers and young daily workers on the shop-floor. These differences, framed in the distinction between the work of the first as "unalienable capital" and that of the second as "alienable labour" (Mollona, 2005), however, obscure the fact that both permanent and daily workers belong to the same social networks and that the destitution of the second is largely linked to the destitution of the first, who either continue to support their relatives when working in the plant, or else simply lose their solidarity due to the competition over priority in recruiting one's offspring.

Managers were complicit in enabling the politics of reproduction to take precedence on the shop-floor in their acquiescence to both workers' demands that their relatives be hired, and the state's attempts to control labour through the governmentality of stability. Managers accounted for all daily workers' labour by dividing the total number of available working days by the number of people. This is said by workers to allow management to bring in more people (including their own relatives) when there is internal news of a new batch of contract positions being offered soon. Management would then divide the total number of available days among a larger group of daily workers. This system also protected daily workers from being laid off when production was low. Instead, management simply reduced the number of days per month each worker could work, but kept them on the rota. This implicit agreement between managers and daily workers in calculating daily wages in an aggregate form allowed daily workers to maintain second jobs outside the plant, while continuing to engage in the long-term project of striving for stability. Such negotiations were enabled by the shared background and cooperation that developed between workers and shop-floor managers, which was highlighted in chapter three.

The repeated disruptions of work schedules due to breakdowns and production downtime at EISCO, were not, however always a source of freedom for daily workers. It often affected the pace and quality of their lives outside the plant and rendered them more dependent on their parents for

subsistence. These periods, highlight their structural linkages to permanent workers, which the everyday division of labour obscures. I was doing my research with ʾAmgad outside in the company town when the Plate- and Sheet-Rolling Mill experienced decreased production due to a shortage of raw material. ʾAmgad would often call me, telling me they had been sent home again because there was no production. ʾAmgad despised staying at home. His mother, who continued to provide for him and his younger sister after his father, also an EISCO worker, had died, often complained about being short of money and the fact that that ʾAmgad, almost 28 years old, was still not contributing to the household. ʾAmgad in general felt quite embarrassed that his mother was the only working woman in his neighbourhood and that he could not provide her with the chance to be finally, properly 'house-wived'. In fact, *ʾāʿid*, short for 'staying at home', is the word that Egyptians use to speak about a person being unemployed. Being at home for several days, like an unemployed person, was an increasingly difficult experience for ʾAmgad, who, between the lines, made it clear that he was having trouble sleeping more than a few hours a night.

Over the following couple of months, daily workers in ʾAmgad's mill worked as little as 11 or 12 days per month, which made ʾAmgad and his colleagues worry that they might be laid off altogether. Amgad took the initiative, along with a few other daily workers, to write to the head engineer of the mill complaining they were unable to make ends meet with such low daily count: the only daily workers' attempt at collective action I witnessed at the mill. This collective action was largely non-confrontational, and simply pleaded with the managers to consider their situation. The parents and relatives of daily workers, however, carried the larger load of their dispossession, since they had support them while work was short.

V. Sociality and Social Reproduction on the Shop-floor

On our shop-floor I saw most daily workers socialising together in groups of two or three people. These small groups would eat separately from the others because they could not afford to share food expenses with the rest, who all ate together. Only those who were alone with older workers in smaller shifts of 3 or 4 tended to eat and socialise with them. A few daily workers, however, told me they liked to be together because they can relate better to people of their same age. From the outside, it often seemed daily workers and temporary workers got along fine, but socialised very little with each other. Shams, another daily worker on our shop-floor, explained that when he was around temporary

workers, "*batdāyiq fi nafsiyyiti*" – "I feel psychologically hurt". "But this is just on the inside", he added; "on the outside I get along with everybody". The experience of being around temporary workers, who had managed to get temporary contracts when daily workers had not, seemed especially hurtful for the latter.

As mentioned in the previous section, the work of daily labour was alienating because the workers had no control over it, it did not engage either their conceptual or imaginative capacities. Most importantly, such work was alienating because daily workers were ostracised from expanding relations on the shop-floor, particularly with those who were similar in age and background to them. The links that connect members of both groups outside work, for example being from the same neighbourhoods or the same company town and of the same age, often facilitates socialising between them. But the division of labour in the plant renders temporary workers closer to permanent workers, with whom they work in rotational shifts, and excludes daily workers from everyday social contact. Shams thus told me that by working together, temporary workers and permanent workers "have tied together already"- "*shabbiku maʿāhum khalās*".

Following Carrier (2009) I consider the separation between their identities and relations inside and outside the plant as essential to daily workers' alienation. The ability to expand on relations both inside and outside, as the previous chapters have demonstrated, is integral to the way work is valued. Stability also means becoming part of larger social networks that enable workers to share their labour in different spheres and to establish their status in society. It is in this sense that daily work is alienating: it does not allow workers to expand on relationality. Yet, the exclusion of daily workers from sociality on the shop-floor is related to a wider process taking place, which reflects the growing contradiction within the project of bequeathing jobs to children. This is apparent in permanent worker's attitude to daily ones.

Permanent workers' attitudes towards daily workers vary: some embrace them and some do not. Yet overall, their relation is rather problematic and reflects not only the precarity of daily workers, but also the increasingly precarious conditions of permanent workers in their roles as 'fathers' who evaluate work and relations in the plant from the point of view of its ability to fulfill their aspirations of family reproduction. While speaking with a few permanent workers filling in my survey, the topic of daily workers came up. One worker expressed annoyance that when his colleagues did not want to do a particular task, they say 'call the contractor [meaning the daily worker hired by the contractor] to do

it'. He criticised this attitude, especially since they too were once like daily labourers. Another old worker joined in the conversation: "We ourselves were not educated and our children today go to university, why then not give the same chance to these workers?" Later that day, however, when asked if certain daily workers had filled in the survey, one of the old workers jokingly responded, "but do they even know how to read and write?" – a joke with rather perjorative undertones.

Some daily workers I interviewed repeated that permanent workers were jealous of them because they had got into EISCO, whereas their sons of a similar age had failed so far. Shams explained that during the bus commute, they often stood with the rest of the new ones who joined the plant. He considered this normal an act of respect for those older. But sometimes he felt that permanent workers were rude out of jealousy, recounting examples where a permanent worker would pretend to sleep to keep an extra seat empty, leaving Shams standing, or would only let him sit on the sunny side, where it was very hot. "It's as if he wants to tell you to get off the bus" he added. It was difficult to confirm Shams's observations because I was only briefly on workers' buses, and was always, as a female, seated in front, so unable to observe interactions. In addition, the 3-High Mill, where most of my fieldwork was conducted, did not have any daily workers. However, the silences, jokes, implicit messages and debates among permanent workers about the status of daily workers seemed to confirm the uncomfortable relations.

The privatisation of permanent contracts into individual quasi-property rights has put the permanent workers' interest in maintaining their family presence at the mill at the core of their work relations and set them against each other. Five permanent workers at the Plate- and Sheet- Rolling Mill had eight unemployed sons (three with degrees) of working age, and had failed to get their children inside EISCO. The precarious life conditions outside the plant evidently impinged on sociality inside it[53]. Permanent workers' feelings of 'jealousy' toward daily workers are thus one plausible explanation for why the latter were sometimes discriminated against by the first. After late 2010, when ʾAmgad got a temporary contract, *Umm* ʾAmgad, his mother, often told me how her neighbours were jealous of him. In 2011, when his temporary contract was made permanent, *Umm* ʾAmgad told me that the neighbours were so jealous that the 'evil eye' was now chasing them, including sabotaging

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[53]   There were at least 15 unemployed daughters of workers at the mill, four of whom had a university education. I do not include them here in the estimation of precariousness outside the plant because, unlike male unemployment, female unemployment was often voluntary. Many permanent workers believed that a girl should not work after getting her degrees, and considered higher education a way to increase one's value by making a better wife and mother to the children in the future. Finding work was therefore not always the goal of education for females.

'Amgad's wedding plans, which made her avoid her neighbours. The jealousy felt towards those who manage to secure work at EISCO reflects how the state's attempts to sustain production in the plant, by putting reproductive politics at the heart of work and by capitalising on permanent, temporary and daily workers' valuations of stability, fragment the community, while enabling the extraction of surplus from workers.

VI. Families and the Politics of Hope

The burden of social reproduction often falls on fathers and mothers, who secure jobs for their children and sustain them while they work at low wages or are unemployed. But the labour that families invest in such social reproduction also involves creating subjects that are accommodating to the neo-liberal conditions. Tarek, whom I first met at the *Kilar*, told me it was his father, an EISCO worker, who had insisted he should try to work at the plant. Shams's father was a farmer and not a plant worker, but his mother's brother (uncle) was and encouraged him to join up. Prior to that, Shams had worked in the upscale area of Maadi as a salesman in a furniture store, and with all the tips etc, he had been making about 750 EGP per month. Shams told me he since regretted having left his Maadi job, and had tried but failed to get it back. Like Tarek and Shams, many daily workers are encouraged and sometimes pressured by their kinsmen already at EISCO to try their luck at the plant. The pressure that families exert on their children to keep waiting for a contract should not be discounted as a major source of stress. 'Amgad's mother for example, would become increasingly alarmed each time 'Amgad said that he was going to leave EISCO to take up another daily job in other cities such as Bani Sueif or Sharm El Sheikh. She would then repeat to him "*khalli ʿandak sabr yā 'Ahmgad",* "have some patience 'Amgad," suggesting that he lacked this quality. If young people are despairing from working in alienating conditions, families who advocate remaining in such a predicament in hope of 'stability' became complicit with the state in encouraging them to accommodate to neo-liberal conditions and secure their consent and silence in the face of exploitation.

As sons of permanent workers, many daily workers felt they had to justify the investments made in them by their parents and to continue the leap that their fathers had made in terms of social mobility. EISCO workers' children's social positioning was central to the reproduction of workers at EISCO as a class. Many sons and daughters of the EISCO workers I spent time with were very

particular about the kind of jobs they would or would not do. The case of ʾAmgad's friend Shawky demonstrates the choice made. He had tried working as a daily worker at EISCO but despaired and left after a while. His mother told me she keeps going to the plant to talk to different managers about taking her son on, especially since his deceased father was an EISCO worker, and employing her son would be a token of gratitude to the deceased father. Shawky is currently unemployed, but refuses to work in many jobs. The nearby Shaq al-Tiʿban area, a marble production area, seemed to attract many young men from Helwan. But Shawky, like many EISCO sons, would not work at Shaq al-Tiʿban. ʾAmgad explained to me that "it would look bad if Shawky came back on a truck all white with all the rest of the folks from the rural areas". EISCO's children, one could argue, and especially those in the company town, were used to being the best in their neighbourhoods and would not accept jobs that they considered below their status. I had never, for example, heard of any EISCO son working in the nearby brick factories, where many young people from across Helwan sought work.

Furthermore, as chapter five will demonstrate, the distinction between the children of EISCO in the company town and those of other families nearby, many of whom were originally sons of the soil and are residing in informal houses (*Bīyūt ʾahāli)* around the company town is striking. The life conditions of each group and the resulting career choices they each make could not be more different. Whereas children who live in *Bīyūt ʾahāli* often have limited education and accept precarious work, EISCO children are more concerned with social mobility and find it difficult to work in jobs below their status. "My son is a university graduate with a degree in law," one of the EISCO workers told me, "but he is currently unemployed. He gets many offers but refuses to work in many of them, saying this is too low, or not good enough." This story was not uncommon among EISCO workers, many of whom complained repeatedly that their children, especially those with university degrees other than the 'top' employable subjects such as engineering or medicine were largely unemployed. However, my interlocutors added, this was very different from the older generation's experience: they would have just accepted work in anything available. The social mobility leaps that EISCO workers have made over the years have had an impact on the kind of jobs their children consider suitable today. The hopes and expectations that the welfare state had encouraged before liberalisation still continued to fuel the desire for social mobility in permanent workers' households. At the same time, however, the reduced opportunities for achieving social mobility today in Egypt through education, place added pressure on daily workers to secure a contract at EISCO and to endure being at the bottom of the labour hierarchy. The desires of daily workers to work at EISCO cannot therefore be understood separately from their familial pressures and aspirations.

VII.   Management, the State and the Politics of Hope

EISCO management's politics surrounding daily, temporary and permanent workers' aspirations for stability, represented by the permanent contract as a token of value, could explain further how they managed to re-orient workers' understanding of work in a way that generates hope *and simultaneously manipulates it,* thus turning it into a source of constant agony and frustration. "I am fed up of this business of stability and have put many lines under it," Shams, who had at that time been a daily worker for four months, told me. "They keep telling us at the end of every month that we'll get a contract, but nothing happens. I will wait until the end of October and then if not, I'll leave". Mustafa, who had worked as a daily labourer for over a year, said: "Once, I saw my name on the list of people who were going to be given contracts, but at the end of the month I was not given a contract and the engineer told me to wait for the next round". In my first meeting with 'Amgad, he told me what made him most bitter while working as a daily labourer was that management was giving new temporary contracts to workers who didn't work as daily labourers and who took up jobs directly using *wāsta*. I witnessed this practice at least once, with a group of five new workers on our shop-floor. During my interviews, many daily workers told me they were fed up with waiting and being deceived and would wait for a last few months and then leave. However, most of them continued working beyond the period they specified ('Amgad for almost another year, having already waited a year at the time when I first met him). However, promises and deception were integral to the politics of hope at the plant. Management, who were aware of the plant's need for new workers, and yet also constrained by state policies capping stable workers' numbers in the public sector, seemed to employ a strategy that manipulated workers' hopes in order to prevent them from despairing altogether.

Halfway through my fieldwork, 17 bus drivers on temporary contracts were given permanent contracts. When I asked one of the senior figures in management, being astonished given the contradiction with state policies averse to permanent contracts, he said that this was actually done more as *"farqaʿa"* as (propaganda) so that the news would spread around the plant and the rest of the workers would remain working in the hope of being given permanent contracts. This kind of politics was instrumental in EISCO management's attempts to coerce labourers into working under unfavorable conditions. Despair could, after all, lead to revolt, which, given management's earlier experience with militant revolt at EISCO in 1989, had to be avoided by any means.

In a similar incident, an advertisement was placed in the newspapers announcing that 350 job openings were available at EISCO. The advertisement was made by the Ministry of Investment, under whose jurisdiction all public companies lie. A senior member of the EISCO administration seemed frustrated with the advertisement. He had not been informed that jobs were going to be made available at EISCO, and applications were now raining down on him. During that period I saw application after application arriving at his office every day. He was not even sure, he told me, whether these jobs were real or not. His explanation was that the government was trying to show that it was implementing Mubarak's electoral program, which included increasing job opportunities for Egyptians. As parliamentary elections were to take place in late 2010 and presidential elections in 2011, Mubarak's state was preparing to secure the support of the workers. These types of advertisements were thus helping, in theory at least, to create the perception that jobs were being created and to sustain workers' hopes for contracts at EISCO. This was a wider practice adopted by the Egyptian state, especially in the late stage of Mubarak's era, where jobs would be repeatedly advertised, only for people to find out later they were not real and the advertisements were simply used to enable the selective recruitment of a limited number of people.

The applications in response to the advertisement were not, to my knowledge, either opened or reviewed until 6 months later, when a new CEO came to the plant. But for daily workers, the advertisement was an additional source of frustration. None of the daily workers I interviewed on our mill considered putting in an application. Most told me it would all be based on connections and *kusa* - literally meaning 'courgette' – the word used in Egyptian Arabic to speak of something being corrupt. Most did not believe it was worth the effort. If anything, it made them less certain of getting their long-awaited jobs, if they were now competing with new applicants. The advertisement did indeed encourage many "outsiders" and permanent workers, whose children and relatives were not at EISCO already, to apply for jobs. Now, they in their turn were hoping for contracts at EISCO. Thus if the real economy in Egypt was failing to meet people's needs, an alternative economy of 'hope' had to be erected and maintained in order to contain the masses and keep them from despairing altogether. Of course if these farces were repeated too often, citizens would then stop believing in them. But because these openings would usually lead to a few real jobs here and there, the rationale of waiting for a job did not lose meaning all together.

Most importantly, the very logic of the police state that Egypt had become, especially in the late Mubarak era, meant that decisions over jobs were not made solely on economic bases, but also –

even mostly – on security grounds. Near to the end of my research inside the plant, around 8 months before the parliamentary elections scheduled for November 2010, the Minister of Investment visited EISCO. On his visit he ordered that all workers should get an extra monthly bonus. The decision seemed completely illogical given that this was a state that was struggling with neo-liberal cuts in public spending, and given that no workers' demands, riots or revolts for increased pay had erupted during this period at EISCO (although many riots were taking place in other public plants across Egypt). But this decision to distribute bonuses, as many understood it, was an attempt to buy workers' support for Mubarak's ruling party, the National Democratic Party, in the period before the elections[54]. These sudden decisions to throw in money here and there made workers somehow always anticipate a sudden change in policy regarding jobs, or the possibility of some fake advertisement turning into a real one. In October 2010 two months following the end of my fieldwork, I learnt, that management had given all daily workers at EISCO temporary contracts. The decision seemed surprising at first, but made sense in the light of the elections the following month. The continuous process of "not knowing what tomorrow brings", however, as Egyptians in general and workers in particular often repeated, made the waiting and hoping for a job increasingly agonising for workers. "Whenever I ask my boss [about why contracts are not coming forth], he says this is a national policy" Shams told me, "but nobody speaks about us".

VIII.   Work as Stability and Future

Daily workers used words such as *'istiqrar,* 'stability' and *mustqbal*,'future' to describe what a job at EISCO meant to them. Most of them had worked in the private sector before, but found the irregularity of work, the long hours, heavy workload, strict work regimes, lack of rights and managements' ability to dismiss them at any time hard to endure. EISCO represented one of the very few opportunities to find a sense of security and an ability to plan for the future, given the stability that the anticipated temporary contracts, which would eventually lead to permanent ones, could guarantee. The fact that, now that they worked for the state, rather than "for somebody", they were no longer threatened with the possibility of being thrown out of work at any time was often identified by daily and temporary workers alike as a major source of security (and pride). While many public plants across Egypt were being privatised, downsized or liquidated under-neoliberalism, and real

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[54]   One of the most startling things I discovered during the research was that the CEO of EISCO also had to act as the head of the National Democratic Party in al-Tibbin. The newly appointed CEO had in fact never been an NDP member but was asked to become one before his candidacy, so that he could go through the state security checks. He was then appointed the head of the NDP in al-Tibbin as soon as he became a CEO.

salaries in the public sector were going down, overall wages at EISCO had been rising steadily because of its political importance to the state. As Tarek told me: working in steel, cement or oil companies was said by workers to be 'the primo', and a source of material stability.

But stability, as I have argued, is not just about material security. Considering stability as a value represented in the circulation of permanent work contracts enables us to understand the ways in which it is important to the community, in expressing relationality. Hoping for and desiring ʾistqrār ('stability'), which workers describe as the goal of their work, should be seen in the light of wider ways in which labour is valued and people earn respect in Egyptian working class communities. ʾistqrār enables workers to expand on their relations in the community, whether by marrying and reproducing or by earning the respect of others for fulfilling their relations to the household and community.

The very idea that employment at the plant brought with it a 'future' was to a large extent related to the stability that came with permanent work in such a plant. One of the most indicative results I found in the survey I conducted in the plant was that almost none of the daily workers were able to join the local savings groups that were widespread in their community, in contrast to permanent and temporary workers, most of whom had become avid participants in these groups. Local saving groups, which are prevalent among neighbours, and sometimes among plant workers, require a steady income and are a popular way to plan for and work toward most major investments in the future, from marrying a son, to buying a house or land, to buying the gold offered as bride wealth, depending on the size of the saving group. For example, as soon as ʾAmgad got his temporary contract, his mother encouraged him to join one of the local savings groups to start planning for his wedding, and he began making marriage plans. The very fact that workers could initiate such future-oriented projects as soon as their incomes stabilised reflects why this job is considered 'a future'.

But the sense of 'a future' that workers spoke of was not just limited to future material gains they could make, but included a rather wider sense of futurity in the very organisation of their time as well. A sharp contrast was evident between the period when ʾAmgad's work life was very unstable, and the following year when he finally got a contract. I suggested that we could work together the following week, and also enquired why he hadn't gone on the summer trip with his sister and the rest of the family. Jokingly, ʾAmgad responded "Wait, but I am now a *muwaẓẓaf* [usually meaning somebody who is formally employed, often in public sector or white collar work] I now have an annual vacation credit and sick leave that I must organise my plans according to". The job at the plant

structured his experience of being in time in a way that enabled him to predict how his life could be structured over a longer period.

IX. Conclusion

This chapter has reported on the physical and social discrimination to which daily workers at the very bottom of the labour hierarchy at EISCO are subjected. To further understand their work experience, it examined daily workers' aspirations to get contracts and the social context in which these aspirations grow into forms of everyday frustration. I have illustrated how these aspirations are politically manipulated by the state, making them a source of agony and trauma for daily workers. In absolute terms, daily workers at EISCO are far from being the most destitute of the Egyptian working classes. However, understanding their work experience in absolute terms risks missing the very conditions and meanings of their experience. It might seem that the pain of upwardly mobile people, so to speak, should not particularly merit our sympathy. But unless we take into consideration the complexities behind aspirations and life conditions, we have very little understanding of how these factors structure people's lives. As Sennett and Cobb have argued, the changes in the lives of the workers who have followed an upwardly mobile path "mean more to them than a chance, or a failure, to acquire middle class *things"* (Sennett and Cobb 1972, p.18)*.* Describing the case of upwardly mobile American workers from migrant origins, they also add that "the story these workingmen have to tell is not just who they are but what are the contradictory codes of respect in the America of their generation" (Sennett and Cobb, 1972 p.23).

Permanent workers on the Plate- and Sheet- Rolling Mill repeatedly told me that the media covers 'the youth problem' but nobody covers the 'fathers' problem'; i.e. that of those who fail to secure jobs for their children, especially at EISCO, where fathers play such a big role in recruitment. Those men said that they were often compared by their families to others who had managed to get their children jobs, and were judged for their failure. "It was as if they [family members] were telling me I was of no value *"ʾaka-innan-hum b-yqulu li ʾinta ma-lak-shi qima"* an old permanent worker told me. At the same time, the senior manager responsible for administering temporary workers' applications constantly complained of the stress these applications put him under. When the aforementioned job advertisement was made, he said: "for the five lawyer positions advertised, we have received 10,000 applications. My phone has not stopped ringing, and every day I go back home, I have to go meet x

and y, who want to discuss the new job openings. The application period in the newspaper is a month, so the one who knows tells the one who doesn't, and by the end, the whole of Badrashin (his local area) wants to work here. Sometimes the CEO himself wonders if the company is going to solve the whole of Egypt's unemployment problem!"

In turn, temporary workers spoke of not knowing whether they would be made permanent, given that at the time of my research most had not yet been there for three years, which is the period of temporary work required by law before getting a permanent contract. Temporary workers therefore could not be sure whether they would be dispensed with at any time. If everybody at EISCO was frustrated, how then could daily workers' experiences be evaluated? I have suggested that to understand the experience of work and the vexation it may bring for members of different groups, it should be analysed within the context of the value of work in these groups' lives and their ability to reproduce the values of their societies as a whole. The intersections between people's values and the politics of the institutions they are reproduced within are key to capturing this experience of work. By looking at the various ways 'stability' was articulated by different actors and institutions and how it was turned, at EISCO, from a social value into a productivist one embedded in calculative arrangements, I have highlighted the complex forms of government informing repressive and divisive labour regimes.

Chapter Five: *Malik al- Nīsh*, the Gaze and Struggles for Family Reproduction among EISCO Households [55]

I. Introduction

On a hot summer day in August 2010, duktur *('doctor') Hussam and I visited the family of ʿamm Medhat in the* balad *('place', but here meaning 'village') of al-Maraziʾ. ʿamm Medhat was our neighbour in al-Tibbin and* duktur *Hussam's colleague in EISCO's administration.*[56] *In addition to the flat he owned in al-Tibbin,* ʿamm *Medhat had also recently built a* Bayt ʿāʾila *('family house') in al-Maraziʾ, his original home village, which is across the Nile from al-Tibbin and continues to house a large group of EISCO workers. ʾUmm Lama, his wife, and their four children spent the three month-long summer vacation in the village every year.*

Lama, their eldest daughter and a final year sociology student at Helwan University, was getting married in two months' time to a patrilineal cousin in the village. Lama's gihāz *('trousseau') was piled up in one of the many rooms of this spacious village house.*[57] *Her* gihāz *contained some of the most expensive household items, ranging from bed linen to kitchen utensils and from china to table napkins. After Lama and her mother showed me the* gihāz, ʾamm *Medhat remarked that he had just spent 15,000 EGP (approx. 1,500 GBP) on it in one day of shopping only, without even exhausting all the items on the list that Lama had prepared.* ʾamm *Medhat, like many EISCO men heading households, believed that having a marriageable daughter these days is a* hamm *('cause for concern'). He went on to explain that a daughter's marriage today costs between 20,000 to 45,000 EGP (approx. 2,000-4,500 GBP), which is higher than the average for a son's marriage, which costs up to 25,000 (approx. 2,500 GBP). Unlike the groom, who is responsible for renting a house, buying electrical supplies and all wooden furniture, the gold for the bride,* mahr *('dowry'), and the expenses of the wedding night, the bride, or more accurately her family, is responsible for the* gihāz, *which consists primarily of consumer goods, whose prices have soared over the years.*

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[55] During my fieldwork I promised the workers whose daughters were soon to be married that a chapter in my thesis would be devoted to *malik al-nīsh (*'the king of the niche'). I hereby fulfil that promise.

[56] *Duktur* Hussam is the generous friend who lent me his house in the company town in al-Tibbin. ʿ*amm* Medhat had an industrial middle qualification but ended up working in the planning department when he was offered a choice early in his career between working on the shop-floor or the administration, and opted for the option that demanded less hard work.

[57] *Gihāz* is offered in the form of consumer goods to the bride and groom.

ʿamm Medhat added, however, that it was women particularly that contributed to the increase in gihāz prices, since they were the ones who visited each others' houses most often. This was more so in the village, where people knew each other well, he said. Hajj ʿUmar, another EISCO worker I interviewed in the nearby village of Niguʿ al-ʿArab, said the same thing. Hajj ʿUmar also believed that these days girls and their mothers bi-yibuṣū l- baʿḍ ('look to each other') – by which he meant that they compare themselves to other mothers and daughters – and thus, end up buying "endless sets of towels and a thousand tea sets to put in the nīsh ('niche')".

The nīsh was introduced to the gihāz sometime within the past two decades. A furniture item common in many bourgeois houses, the nīsh consists of a wooden showcase, which the bride fills with different sets of china, and various tea sets and glasses. Throughout my fieldwork, male workers complained about rising marriage expenses, but the niche is a particular target for protest. Hajj ʿUmar for example, said "huwa al-nīsh dah ḥāga kunna nismaʿ ʿanhā ʾabl kidah" ("is this niche anything we ever used to hear about before?"), ʿamm Medhat explained that the reason they despise that particular piece of furniture is that it just gets stuffed with drinking glasses and teacups that the bride and groom never use, but which remain there only for display. But Lama disagreed with her father. The point was not the use of the objects, she said, but that she had to buy the best items to display in the nīsh because "ʾanā baʿmil l-nafsī ʾīma" ("I am making a value for myself"). She had to show her in-laws in the family house she was about to live in that she and her family were capable of buying the most luxurious items. [58]

While the nīsh had become a common object in many EISCO and non EISCO households, it was malik al-nīsh ("the king of the niche") that disturbed EISCO workers the most and made conversations about marriage livelier. Malik al-nīsh is a new addition among niche sets. It is a golden-painted tea set, consisting of a large teapot and accompanying teacups. It costs about 350-450 EGP (35- 45 GBP) and is placed at the centre of the niche as a status symbol – much as the Bonbonnière en Sèvres sits at the centre of the niche in some aristocratic and upper-middle class houses. In a large majority of EISCO marriages, the daughters' gihāz is now expected to include malik al-nīsh. It had become the object of much joking among workers and their families. Some fathers wondered why they could not just buy a "prince of the niche" or even a "guard [ghafīr] of the niche". ʿamm Medhat, for example, dismissed all

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[58]According to the list of prices that Lama shared with me, the sets bought for Lama's niche cost atotal of 1,565 EGP (156 GBP). This is approximately the cost of six months' rent in some parts of the EISCO company town.

this as mere eccentricity, bidaʿ, *and lamented the fact that new goods and practices were being constantly introduced.*

An integral part of EISCO's recent social history is encapsulated by the access to items such as the niche and its "king". The negotiations around consumption practices among households of EISCO workers highlight wider social reproduction politics and aspirations in al-Tibbin.

This chapter addresses EISCO workers' sociality outside the plant. The previous chapters have illustrated how permanent workers occupy an elevated status on the shop-floor that enables them to *de-facto* control the workload and work relations. Outside the gates of the plant, in areas where EISCO workers reside – such as the company town, the satellite cities in Helwan and in the villages surrounding the plant – permanent EISCO workers have also acquired a status similar to that of the middle classes in these areas. This status makes their households distinguishable in terms of structure, lifestyle and aspirations from those of other casual workers and to a certain extent of organised workers in the private sector who live in the *bīyūt ʾahālī* ('family housing') surrounding the company town.[59] I look at the variety of households that have emerged with EISCO in order to link the individual histories of their inhabitants to the transformations in the political economy of the steel industry over time.[60] I then compare the households of EISCO employees to those of casual workers, who live on the borders of the company town, in *bīyūt ʾahālī*. The argument is that there is a stark difference between the life conditions of EISCO households and those of *bīyūt ʾahālī*.[61] The first is redolent of a labour aristocracy, whose interests often conflict with those of *bīyūt ʾahālī* residents. The ability of future EISCO generations to continue living the good lives of their families depends on inhibiting the social mobility of members of *bīyūt ʾahālī*. In other words, for the potentiality of their permanent work to be realised as a valuable property, permanent workers have to exclude *bīyūt ʾahālī* members from accessing it.

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[59] *bīyūt ʾahālī* often refers to housing built by people informally rather than state-planned, private or public, houses. The name reflects their run-down and impoverished status. *Bīyūt ʾahālī* in al-Tibbin today house both the *tabābna,* who are the sons of the soil in al-Tibbin and a large number of casual workers' households. The houses are on the edges of the EISCO company town.

[60] Throughout the chapter I use *household* and *family* interchangeably. As Mundy (1996) argues: "the distinction between household (actual domestic arrangements) and family (understandings governing the right relations between kin) [is] proving singularly infertile for the analysis of Arab societies" (Mundy, 1996, p. 89).

[61] EISCO households are not limited to the company town. They are spread all over Helwan and Giza mostly in rural areas and new satellite towns. In this chapter I only focus on the households in the company town given the sheer numbers and diversity of EISCO households elsewhere, which are difficult to cover systematically in this study.

EISCO households, though somewhat distinct as a group from those of *bīyūt ʾahālī*, are nevertheless by no means homogenous. One permanent worker and resident of the company town described EISCO's households in the town quite accurately when he said they were made of "peaks and slippery slopes" *(qimam wa munḥadarāt).* By focusing on the quest for social mobility among this aristocracy of labour and the problems some of them face in extending their place in the social hierarchy to their children, this chapter highlights why many members of the EISCO community find the company town quite polarised. Put simply: some EISCO households have been more socially mobile and have become bourgeoisified. Others have failed to reproduce their social position and find themselves sinking into the more proletarian condition of casual workers in *bīyūt ʾahālī*. These internal distinctions among EISCO households are marked by their relative degree of differentiation from the residents of *bīyūt ʾahālī*. The latter, in a sense, contribute to the politics of 'rise and fall' among EISCO households by providing a yardstick against which they are measured. The changes in workers' relations and statuses inside the factory are thus traced here within the larger frame of the neighbourhood and locality. I look at how the neighbourhood is re-formed and re-negotiated along workers' status lines, taking lead from Donner's (2006) suggestion that the neighbourhood should not be considered by anthropologists only as a backdrop to the research, but that spatial delineations in the locality are implicated in the gender and class politics of the community.

The proximity of *bīyūt ʾahālī* and the EISCO households makes them both integral to the way they view each other, and most importantly, to the way they view themselves. While EISCO households represent, to *bīyūt ʾahālī* households, the meaning of stability, the residents of *bīyūt ʾahālī* are a negative reminder to EISCO households of the consequences of no longer being part of an aristocracy of labour. Class is hence always relational in that it is expressed by groups in performance to others. The imaginative appropriations of social status in al-Tibbin influence EISCO households' everyday interactions with the residents of *bīyūt ʾahālī* and the way they prioritise their economic and social investments. Upwardly mobile EISCO households, who are a new middle-class, distance themselves from the residents of *bīyūt ʾahālī* in order to affirm their newly acquired status. They call them *zibāla* ('rubbish') or *sūqiyyīn* ('market people') and refrain from interacting with them outside formal occasions. This group's preoccupation with the way they look, how they maintain themselves in society and the objects they own marks their social transition. On the other hand, the EISCO households that have been unable to meet their own social expectations often have to interact with the residents of *bīyūt ʾahālī* in order to generate capital and expand their relationality. They therefore cannot treat the residents of *bīyūt ʾahālī* with the same disdain as the first group, but must focus on

distinguishing themselves through an increased preoccupation with their images and with 'perfecting the self'. Being even more focused on consumption and calculative practices, they worry about others' looks, looking at others and comparing themselves in the community. Consumption practices are not only the outcome of social mobility, but more importantly a means by which the households that face a perilous future avoid social degradation. The gaze of others thus embodies the intimate politics of class. It conveys both the desire to construct relations in the community and be recognised by others as well as how social values overlap with market values as lives become progressively privatised and financialised.

Since the inception of EISCO, workers' households have distanced themselves from the residents of *bīyūt 'ahālī*, perhaps in a subdued attempt to legitimise their stay on their expropriated land. But the recent gentrification of al-Tibbin made them even more invested in separating themselves from the latter. EISCO households have usually labelled *al-tabābna*, the predominant members of *bīyūt 'ahālī, ḥarāmiyya* ('thieves') for being involved in crimes (often targeting the infrastructure of the company town). The latter refer to EISCO households as *'agānib* ('foreigners'), who are occupying their lands. Yet, the privatisation of the housing in the company town since 2006 - which allowed EISCO workers to buy the houses they rented from the plant and re-sell them on the market as they pleased - and the liberalisation of rents under the new tenancy law in 1996, have allowed some of the wealthy residents of *bīyūt 'ahālī* to move into the company town and become neighbours of EISCO households. This new physical proximity has thus accentuated distinctions that previously existed in the largely matter of mind. This latest stage in the long, history of relationships between households in the EISCO company town and those in *bīyūt 'ahālī* suggests that their lives have been so interwoven that their stories cannot be narrated separately.

The chapter will first provide a brief background about the spatial arrangement of al-Tibbin. It will then follow with a theoretical discussion to frame the relation between factory, family and neighbourhood. The relation between consumption practices and the gaze is then presented before moving on to narrating life histories of different families from different parts of al-Tibbin and drawing some conclusions about the implication of market-isation of the town.

II. The Archaeological Layers of the Company Town

The geography of al-Tibbin mirrors the historical evolution of the plant since its inception in the 1950s.[62] The company town, which accommodates EISCO households, occupies the central area of al-Tibbin, extending from the gates of the plant in the east of the town almost up to the main road along the Nile to the west. The houses of *al-tabābna*, the original residents of al-Tibbin, were initially built on the agricultural land where the plant and the company town were later erected following the land grab. The houses have since been pushed to the fringes of the company town and *al-tabābna* now reside in *bīyūt ʾahālī*, groups of which surround the company town to the north and south, with a smaller group to the west by the banks of the Nile.

The company town, on the other hand, is divided primarily into two main areas; Madinat al-Sulb al-ʾAdima ('The Old Steel City') and Masākin al-Sulb al-Gadida ('The New Steel Housing'). The first area was built with the inception of the plant in 1954 and is located in the area right by the plant gates. The second was built around the 1970's to accommodate the new workers who were employed when the plant was expanded. The New Steel Housing is adjacent to the Old Steel City and extends almost up to the main road by the Nile to the west of the al-Tibbin. The differences between Madinat al-Sulb al-ʾAdima and Masakin al-Sulb al-Gadida reflect the development of the steel industry over time. The inhabitants of the Old Steel City are considered the privileged members of the community. This is evident in the names that other residents of al-Tibbin, including those who live in the New Steel Housing, use when referring to them - for example as 'bahāwāt' or 'fāfī' . *Bahāwāt* is, according to *The Dictionary of Egyptian Arabic* (Hinds & Badawi, 1987) the plural of *bey,* which was formerly used as a court title for the second-highest ranking officers or officials. *Fāfī* is slang for someone who is spoiled and does not have a strong character. As the wife of a steel worker who lives in the New Steel Housing remarked, the discursive contrast between 'The City', the abbreviation of The Old Steel City, which in everyday communication is referred to as 'The City' and 'The Housing', the newer part of EISCO's company town, 'The New Steel Housing', which is commonly referred to as 'The Housing', itself reflects this difference in status between both areas.

While the difference between *bīyūt ʾahālī* and the company town is the most striking for first-time visitors to al-Tibbin, the difference in status between 'The City' and 'The Housing' is also important because it demarcates geographically the effects of the liberalisation of the economy since the 1970s on EISCO's labour force. This difference captures the slow process of EISCO workers' social fragmentation and differential success in reproducing their status which the previous chapters have

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[62] See figures 22 to 29 in Appendix for photo descriptions of the different areas in the company town.

highlighted. Although not all of the residents of the Old Steel City are successful in social reproduction, just as not all of those living in the New Steel City have failed in this field, the contrast between the general trends and characteristics of both spaces is revealing of the wider politics of reproduction in both areas. Successful social reproduction depends on a variety of factors, which cannot be fully analysed in a limited project such as a PhD thesis. Ownership of land and other private property, support from family in the original home village, personal connections, moonlighting opportunities, access to credentials and personal perseverance and astuteness are all factors that contribute to families' abilities to reproduce their position. For a labour force that approaches thirteen thousand workers, it has not been possible to systematically trace the influence of these factors, and a proper investigation of them is a task for future research. For the task at hand, the spatial delineation of the EISCO workforce in upscale and modest areas, which mirrors its historical evolution and devolution over the long term, is one way to ask larger questions about the relational aspects of class politics. An exploration of the major characteristics and trends in each of the *bīyūt ʾahālī*, the Old Steel City and the New Steel Housing areas is necessary before further analysis is possible.

a. Bīyūt ʾahālī

al-Tabābna, the 'sons of the soil' in al-Tibbin, live in areas that are referred to generically as *bīyūt ʾahālī,* in reference to the type of housing prevalent in these areas. The sections they live in are also given specific names that sometimes reflect their living conditions. For example, al-Tibbin al-Balad and Tal ʾabib ('Tel Aviv') are located in the south of al-Tibbin. The name of the latter references the city in Israel, an indication of how harsh the conditions in the area are. al-Hikr al-Qibli, in the northwest, is an area known for the proliferation of drugs and arms, and al-Hikr al-Bahari, in the northeast, is home to the *tabābna,* who were formally relocated by the state and given land titles after being displaced by the plant[63] . Some of *al-tabābna* also reside and own land in the only remaining agricultural area north of al-Tibbin, called al-Malaʾa. al-Hikr al-Qibli, al-Hikr al-Bahari and al-Malaʾa are separated from EISCO's company town by a railway track that services the plant. The railway marks a boundary that separates the two communities. *Bīyūt ʾahālī* houses are easily distinguishable from those of the company town because they are made primarily of mud brick and

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[63] *Ḥikr* according *to The Dictionary of Egyptian Arabic* (Hinds & Badawi, 1987) means land owned by the government that is leased to a private tenant. This land is typically unused and rundown *waqf* land – an endowment under Islamic Law donated by a person or private entitiy for charitable ends and managed by the government's ministry of *ʾawqāf (plural for waqf)*. *Ḥikr* in everyday language often denotes a run-down and impoverished area.

are often only two to three stories high. The small workshops and little stores on the ground floors of the buildings animate the streets through day and night, while young people and children spend most of their time on the streets.

The *bīyūt ʾahālī* are mainly inhabited by *al-tabābna*. The oral historical accounts have it that al-tabābna were originally seven big families that settled in al-Tibbin and their offspring represent the majority of *al-tabābna* to date. Some of these families are of Bedouin origins, referred to as *ʿarab*. They remain in contact with the rest of the *ʿarab* tribes spread across Egypt, which increases their social networks. A few *tabābna* joined EISCO, but many did not. Those I interviewed have different explanations for this; some claim that they were often discriminated against for their large family backing, involvement in crimes and access to arms, and the more general reputation to be potential troublemakers. Others report that they themselves did not want to work in the plant because "*al-tabābna* do not like working for somebody" and prefer working with kin and people in the same networks; while some did not want to work in the company that had stolen their land. *Al-tabābna* are divided between members of big families – primarily those who were able to keep the land, are involved in crime, have strong connections with the police and the local municipality and are generally quite wealthy – and the rest of the landless community, who are struggling to make ends meet on an everyday basis. Many of the wealthier *tabābna*, who were originally land-owners, have built brick factories in the nearby area of *ʿarab Abu Saʿid*, which used to belong to al-Tibbin. A large group of them also works in the scrap trade.

As mentioned earlier, residents of the company town are apt to refer to *al-tabābna* as 'thieves'. But the poorer members of *al-tabābna* are also not averse to using this same term to refer to their own community. They find that the criminal practices of the members of larger and wealthier families, who manage at times to recruit some of the poorer members of the community into their projects, bring this reputation to their community. For example, the EISCO rail tracks near the plant, which are used for transporting the iron ore from the mines in the eastern desert, are often stolen by *tabābna* for resale as scrap. Some *al-tabābna* also cooperate with the local police in collecting *ʾitawa* ('protection money') from the micro-bus drivers that go from al-Tibbin to various places. Some of the disputed empty land within the company town is often taken over *wadʿ yadd* ('a claim of ownership, of a piece of land usually, by means of force/settling on the land) by members of powerful families of *al-tabābna*, who argue that they are reclaiming the land originally stolen by the state, a practice that also increased following the 2011 revolution. In addition, following the revolution, they have been

accused of being responsible for breaking into the plant to steal spare parts, leading the military council in charge in 2011-2012, at the plea of EISCO workers, to send in tanks to protect the plant.

While the criminal activities of *al-tabābna* might reflect the power that large families have and their involvement in corrupt networks with the police, it also speaks of a community that is utterly oppressed, which often uses criminal activities as a fast, and perhaps even justifiable, means of accessing cash. The majority of *al-tabābna*, who are not wealthy members of big families, work as drivers, barbers, casual daily workers on construction sites, in brick factories, in the private sector or in small workshops. A large majority, especially of young people, is seasonally unemployed, and most struggle to find employment altogether. Recreational drug use, especially of cheap prescription drugs generically referred to as *birshām (*'medicine'*)* – most commonly painkillers such as tramadol, locally nicknamed *farāwla* ('strawberry') – are used widely by *tabābna* young people. [64] The distinction between *al-tabābna*, or more generally, those who live in *bīyūt ʾahālī*, and those who live in the company town is clear in the characteristics of both living conditions and family structures. *al-Tabābna* have large family sizes and their family members have little education. *ʿamm* zinhum, a *tibbīnī* I interviewed in *bīyūt ʾahālī*, told me what others from the community also repeated: "*fil-tibbin niẓām ʿaʾilāt ʾamā fil ṣulb niẓām ʿafrād*" – ("al-Tibbin is based on a family system but the Steel [housing and city] is an individual system").[65] He said, "*ʾiḥnā hinā māl wi ʿizwa*" – ("we are [dependent] here on money and [large family] backing").[66] Young people in al-Tibbin, especially females, marry quite early, and very rarely work. The early age of marriage reflects the inability to financially support daughters for long periods of time and the low expectations about the marriage match. Work is also considered taboo for women among the poorer sections of society. But not all those who are in *bīyūt ʾahālī* are *tabābna*, some are migrants from different parts of the country, who have come to work in Helwan with *tabābna*; however, they share large family sizes, low level of education, early age of marriage, restrictions on female work and precarious working and living conditions. There are hardly any EISCO workers that are residents of *bīyūt ʾahālī*.

b. The Old Steel City

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[64] The use of recreational drugs, especially painkillers, is also prevalent among youth in the company town but not to the same extent as in *bīyūt ʾahālī* areas. Cannabis, which is more expensive, is more in use among the former.

[65] By al-Tibbin, here *ʿamm* Zinhum means the housing of al-Tabābna, i.e the bīyūt ʾahālī.

[66] *ʿizwa* is a way to speak about having too many children that then become your source of pride, backing and support.

The Old Steel City, commonly known as The City, was built as the original company town of EISCO. Four-storey buildings, with two flats on each floor, are spread across the town. Each flat is a two-bedroom apartment. The houses were first inhabited by workers who were employed at EISCO as daily contract workers in the late 1950s and early 1960s. These workers later acquired permanent work contracts and settled in The City. Today, their houses are mostly occupied by their children, who are themselves workers in the plant. Over time the household of The City became the privileged residents of al-Tibbin.

Everything about The City makes it quite distinguishable from the rest of the housing in al-Tibbin. It is marked by vast spaces and a quietness that are unknown in Cairo, one of the most densely populated capitals of the world. Transportation around The City are scarce. Most travelling is done on foot or by bicycle, which men use primarily to go to and from the plant. It is one of the very few spaces in Egypt were bicycle riding is not deemed an activity of 'low status'. A few residents own private cars, which eases their mobility compared to the rest. The micro-buses that lead from The Housing to the roundabout at the centre of the City are the only connection between The City residents and the outside world, including the local stores and markets that abound in The Housing. Otherwise, The City is a self-enclosed space. Only a small vegetable market, surrounded by a handful of stores and a now defunct EISCO food cooperative, are found within in it. The prices at its market are higher than those in the main market by the main road near The Housing. To accommodate the lack of instant supplies, a few residents have secured permits from the local municipality through connections to open kiosks on the main streets, often right by their houses. These kiosks, which are run by residents to service other residents, further add to The City's sense of seclusion. The shutters of the houses are also often closed because of The City's proximity to one of the most polluting industries in Egypt, which showers every house with a daily share of dust. The closed shutters add to the sense of privacy and seclusion of the area. The buildings in The City were originally separated by large spaces of greenery, but these were recently destroyed by the local municipality on an account of their alleged use as narcotic plantations and the improper sexual behaviour that took place in the bushes. Palm trees, which date back to when it was agricultural land owned by *al-tabaābna*, abound in The City, forcibly reminding its residents of the 'original theft' that gave birth to this place.

The City also houses other institutions affiliated with EISCO. These include the social and sporting club of the plant, which was established for household members of EISCO workers. The club has a large football ground, a swimming pool, a hockey pitch (EISCO was famous for its nationally-

leading hockey team), a children's playground, a special occasions ballroom, and a gym that offered aerobics classes for the female residents of the area at the time of my fieldwork. EISCO workers who could afford it organised their families' wedding celebration in the plants' club, often beside the swimming pool. This was considered more prestigious than traditional weddings that usually take place on the streets near to one's house. The city also houses the technical industrial school adjunct to the plant, whose students spend their last year training inside the plant. A metallurgical research centre affiliated to the Metallurgical Holding Company, a post office, a police station, a surgery hospital, and the now-defunct former headquarters of Mubarak's National Democratic Party in al-Tibbin are all also located in The City.

Every household in The City occupies a spacious two-bedroom apartment. These houses are mainly allocated to workers, because Engineers are said to have refused to live among workers, especially at the inception of the plant. My rough household survey shows, however, that a small number of engineers do in fact occupy some of the houses. The living conditions in the City reflect the path of social mobility of its inhabitants. Having mostly joined the plant in a fairly destitute state, the inhabitants of The City fared well in the years that followed, which marked the peak of Nasser's welfare policies. *'Umm* Kamal, one of the first residents, who arrived in The City with her husband, who joined the plant in 1959, was keen to share her recollections of the social transformation of the area. She tells me that at first nobody wanted to live in al-Tibbin. It was, she said, rather like living in the midst of the hills that surrounded the plant and the area was so empty, it was hard to do any convenience shopping, even for salt. An EISCO bus transported the household members of employees to Helwan in order to do their shopping. Only those who had nothing to lose were willing to take a risk of living in this place. But 'Abdou, the son of her neighbour in the same building and now a worker himself in the plant, reckons his father's generation became well off rather easily and quickly because *kanū ʿāyshīn bi-balāsh* ('they lived for free'). They did not have to pay for electricity or water usage, rent payments to the plant were very low, house maintenance was undertaken by plant technicians, they did not use transportation to and from work and members of their households were often transported by plant buses, including children who were dropped off at their respective schools and universities. It made for something like a "free life".

This ease of life is reflected in household forms and child rearing strategies. The City is known for the high average number of children of its households compared to the average number of children of later EISCO workers, although it was not higher than the average completed fertility in the

1950s of eight children per mother (Robinson & El-Zanaty, 2005). Households in The City were also famous for the high level of schooling and education and the large proportion of children who were later employed in the plant. Daughters of the first generation workers were often able to complete university and female employment was prevalent, especially because many of the daughters of the workers occupied positions in the plant administration. Polygamy was more prevalent among male workers of the first generation in The City. They could afford to set up two different households. Divorce rates and unmarried women were also both high among their female children, reflecting that these women had the means to await the right suitor and to break up a conjugal unit and return to the paternal household to be supported by the father. Inter-marriage among children of the first generation of workers was common, as the young men met the aspirations of upwardly mobile households with marriageable daughters. Many of these daughters also 'married well' to doctors, engineers and business men and went to live in the Gulf. The City households thus built up a form of social capital in the relations they fostered with each other and later by marrying one another.

ʾ*Umm* Reda, for example, the daughter of a steel worker who grew up in The City but is now married to another steel worker and has lived in The Housing for over thirty years, summarises how the residents of The City are viewed by others. In The City, she says, "three quarters of them, their children have higher education and have travelled abroad. This is different from here. There you find the doctor, the lawyer and the engineer because people are old and their children moved up. They were people with high salaries back then. These are the *bahāwāt* ('those of higher status'). They are different from us."

In addition to the housing allocated to workers since the 1950's, a few other types of housing also exist in The City. The first are locally known as *al-talātāt* ('the threes'), which are located in a special area in the North East of the City and are originally allocated to engineers and foremen. These buildings owe their name to being three-bedroom apartments. The city also boasts a few villas by the gates of the plant, which were allocated to the earlier CEOs and heads of mills whose families have retained them. When the Soviet technical experts assisted in the building of the second part of the plant between the late 1960s and early 1970s, they were provided separate housing to accommodate their families within The City. This area came to be known as the 'Russian Experts' City'. Residents of The City have a lot of memories from having lived side by side with the Soviets. While some recall how they were formally segregated, most of them remember the friendly exchanges they had. These exchanges add to The City residents' sense of pride in their cosmopolitan character. When the Soviet

experts were expelled from Egypt by Sadat in the 1970s, their housing was allocated to EISCO workers, especially those with large families who needed to relocate to wider appartments.

Finally, The City also houses the *ʿimārat ḥadīthat al-tashyyīd* ('newly built buildings'), which were built in the 1990s on the empty green areas between the old buildings of The City in order to accommodate more households from EISCO's labour force. These are six-storey buildings, which were sold directly to workers in instalments in the late 1990s, in contrast to the rest of the houses in the company town, which employees rented from the plant up to 2006 when the housing was privatised. The newly built buildings were thus the first to accommodate 'newcomers' to the company town, who had bought or rented flats from EISCO workers. Apart from the new buildings, most of the buildings in The City are rather run down and dilapidated with leaking broken water pipes flooding waters onto the back of the houses, broken stairs and dim hallways. Maintenance used to be done by EISCO workers on behalf of the plant, but this stopped in the 1990s, as the plant increasingly decreased its welfare responsibilities towards residents. The state of The City buildings reflects the changing history of the plant, displaying a marked contrast between the spacious concrete shells themselves and their run down facilities, which have deteriorated over the years.

c. The New Steel Housing

Life in The New Steel Housing, commonly referred to as "The Housing", is rather different from "The City". The Housing shares none of the quietness and seclusion of The City. The main street leading in is busy with local shops that remain open throughout the day and night. They range from hairdressers, to pharmacies, to food and clothing shops, whose number seemed to increase every time I visited the area. The streets of The Housing are also busy with micro-buses, making its inhabitants quite mobile and engaged with the rest of the world. The Housing is also closer to the *bīyūt ʾahālī* areas, which surround from the north, west and south. The facilities in The Housing thus cater both to the EISCO workers and to the residents of *bīyūt ʾahālī*. The streets of the Housing are much more animated with young people and children, who also make use of the facilities in the area such as the local youth centre, the main schools, where most children of al-Tibbin are enrolled, and a private park. The area also includes the plant's consumer goods cooperative, which sells furniture, household supplies and children toys to EISCO workers in instalments; the main food market, which lies between the Housing and the *bīyūt ʾahālī* in the west; the private clinics of the local doctors, and

the main micro-bus stop. The Housing is the part of the company town that is always under pressure, in that it caters not only to its own residents but also to those of The City and the *bīyūt ʾahālī*. It represents in a sense, the "squeezed middle".

The Housing was built in the seventies to accommodate the growing number of workers at EISCO, especially following its expansion with Soviet assistance. The expansions had increased the workforce by almost 6,000 new employees in 1973 and then by another 5,500 in 1974. The total workforce had thus doubled from 10,973 employees in 1972 to 21,372 in 1974. Instead of two apartments with double bedrooms on each of the four floors, as in The City, The Housing buildings are each five storeys high with four apartments on every floor. Each apartment has one bedroom only, being referred to locally as *ʾuda wa ṣāla* ('a bedroom and reception apartment'). The relatively smaller living spaces by contrast to The City houses has thus influenced its household forms.

But household structures were also affected by the significant reduction in state welfare provisions since the mid-1980s. The second generation of workers who inhabited The Housing struggled with difficult living conditions compared to the first generation who had moved into the City in the late 1950s. The size and structure of the families reflect these struggles. Their everyday practices and aspirations do to. Though the children of workers who live in The Housing still have credentials, they are not as highly educated as those of the first group that settled in The City. By the time the new workers were raising families in The Housing, one of the sectors that liberalisation had hit the hardest was the education sector. *Al-durūs al-khūsūsīyya* ('private tutorial lessons'), which cost families a significant amount of money, especially those that take education seriously, became a prerequisite of advancement and achievement through the school system and onto the university. At the same time, competition for coveted university spots in *'kuliyāt al-qimma'* (the top schools') intensified as enrolment numbers in these schools did not increase to match the rising number of graduates of the school system. This has often meant that most children of workers that had settled in The Housing either made it only to lower-ranking universities – what one worker called *'kuliyāt al-shaʿb'* (the peoples' schools') – or stopped after acquiring a middle qualification. In addition, because the public sector across Egypt stopped hiring new recruits in the early 1990s and unemployment among the university-educated as well as the middle-qualified soared by the 2000s, education gradually lost value as a means of accessing a high-ranking job, especially in the public sector.

Workers' daughters in The Housing were significantly dispossessed when overall unemployment rates had skyrocketed. The de-regulation of capital and labour with the liberalisation of the economy had cut employment opportunities for females and further ingrained sexism in everyday life. The preference for female employment in the EISCO community had always been towards a *wazīfa* (a public sector job or a white collar one) because of the reduced working hours, maternity benefits and legal protection. With these opportunities virtually unavailable for women today, most females at The Housing were thus encouraged to stay at home. The contrast with the first generation's daughters, many of whom had worked at EISCO was striking. The daughters in The Housing did, however, sometimes work a little before marrying- either in private textile firms (which were considered of low status in the community because of alleged stories of sexual and romantic affairs and harassment from employers) or in local shops- to contribute to expenses of their *gīhāz.* They generally stopped working soon after marriage. But even those who did not have a prejudice against non-*wazīfa* work struggled to find jobs that met their educational qualifications.

Workers' daughters were also encouraged to marry early, though not as early as daughters in the *bīyūt 'ahālī*. Female divorce rates and the rates of unmarried women were also not as high as in the first generation in The City dwellers. Intermarriage among The Housing community was limited. Many of the young men did not meet the upwardly-mobility aspirations of EISCO females and their families. They were more likely to find a bride from *al-balad*, their home village, or sometimes from the *bīyūt 'ahālī*. In either case they tended to prefer a bride who was referred to as *waḥda ʿāyza tiʿīsh* (*'one who wants to live'*) that is the a female that accepts moderate living standards and does not make as many demands as would one from a wealthy family with high upward mobility aspirations.

This cap on the upward mobility that education and jobs had offered in the past, in addition to the exposure to an increasingly financialised economy, made the residents of The Housing more preoccupied with conspicuous consumption and with the way they appear in the gaze of others. The pressure of the liberalisation of the economy thus fell largely on households in The Housing, both in terms of reduced material opportunities and reduced expectations about the type of life they could lead. It should however be noted that the second generation residents of The City also struggled with similar concerns regarding jobs and education and at times suffered more profoundly the effects of the onslaught of neo-liberalism. This is partly because of their heightened expectations of the good life they would lead, which were fostered by the experience of their fathers' generation. As we shall see , the aspirations for and expectations of stability, as well as the material conditions of workers,

contributed to their sense of rise and fall, and to these "hidden injuries of class" (Sennett & Cobb, 1972).

d. al-Tibbin in Recent Years

Although the difference between the company town (comprising both The City and The Housing) and *bīyūt ʾahālī* continues to be the most salient in al-Tibbin, over the years the gap between households that occupy these three distinct sets of housing has narrowed while distinctions began to become more evident within the EISCO workers' community at large. The opening up, since the 1990's, of a few private-sector companies in the area where EISCO sons and *bīyūt ʾahālī* residents worked together, the introduction of early retirement packages for EISCO permanent workers in 2001, and the mass unemployment among young generations, especially the university-educated, have led to some of the blurring of the original distinctions. The fragmentation of the workforce around the reproduction of the domestic sphere made the social reproduction of the EISCO community at large more difficult and complex. But what deepened the distinctions among EISCO workers was the gentrification of the Company Town, following the liberalisation of housing rents in Egypt under law 4 of 1996, commonly referred to as *qānūn al-ʾīgār al-gadīd* ('the new tenancy law'), and EISCO's policy in 2006 to enable its employees to buy, in cash or in instalments over ten years, the apartments they had rented from the plant over the years. The houses were offered at markedly modest prices and the majority of the workers were able to buy their houses from the plant. Most permanent workers were thus able to transform their access to a permanent contract into a form of housing property that their children could inherit. The housing property market that resulted from privatisation changed the nature of the company town and opened it to non-EISCO residents.

Until 2006, most workers rented houses from the plant under the old tenancy law, according which leases were for an indefinite period of time – what is generally called *mushāhra*. This allowed the tenants' family members to keep the house following the death of the tenant so long as the family members could prove they had been living with the tenant during the period of his tenancy. The rents were also regulated by the state and were remarkably low (at EISCO's company town they ranged from 16- to 25 EGP/month, which is approximately 1.6 to 2.5 GBP/month). In the mid 1990's, EISCO attempted to implement a policy that required employees whose family members no longer lived in houses rented from the plant to relinquish them to the plant following the retirement of the

employee. The policy was strongly opposed by EISCO employees, however, and the decision was never implemented. Employees' family members were thus allowed *de-facto* to inherit the housing property, even before they had legally bought it from the plant, which was possible from 2006 onwards. Although this *de-facto* property increased workers' sense of stability and ability to plan for the future, it did not significantly affect relations in the community.

More recent changes in the housing market have, however, totally altered the composition of the Company Town and relations within it. In 1996, the new tenancy law gave landlords sole authority to control the terms of the tenancy agreements as well as the rent. Prices in the Company Town rose significantly from 250 to 450 EGP/month(25 to 45 GBP/month) and with a lease that in practice ranged from one to five years. EISCO workers who rented out their houses, which they had bought following their privatisation in 2006, now did so under the new tenancy law. They thus brought new wealthy tenants into the Company Town, mostly richer members of the *al-tabābna,* who had previously lived in the *bīyūt ʾahāli*. In addition, the housing market in the Company Town catered to the new young fixed-term temporary contract workers, who wanted to live near the plant but, unlike permanent workers in the past, were no longer offered housing by the plant (not even when their contracts were made permanent towards the end of my fieldwork). When the value of the Company Town houses increased almost tenfold between 2006 and 2010 because of the demand and the increase in housing property prices in Egypt generally, many permanent workers decided instead to cash in on their property or simply rent it out under the new tenancy law and build new family houses (*bīyūt ʾaila)* in their home villages instead, in the nearby land of al-Malaʾa or in other satellite cities surrounding al-Tibbin. Doing so enabled them and their children to cope with the Egypt-wide 'housing crisis', which the young generations suffered due to their inability to pay the increasing rents. By housing their children in their large family houses, the fathers replaced the previous role played by the state in both protecting tenants and offering new workers accommodation at cheap prices.

Meanwhile, in the Company Town, the liberalisation of the housing market and the increase in housing prices brought in new residents who had much more financial liquidity and who contributed to the increased financialisation of everyday life and the consumerist practices in the area. The new residents belonged in part to the new middle class, which a large part of the class literature on Egypt addresses (Abdel Moty, 2002, 2006; Siyam, 1991; Waterbury, 1983; Zaalouk, 1989). This new class is generally considered to encompass those who made their wealth following Sadat's *Infitah* – open door policies – which liberalised the economy and thus favoured those who worked in the construction,

financial and trade sectors, as well as those who worked in the Gulf during the peak of the oil boom and state employees who managed to make private gains. The new residents in the Company Town from merchants and traders originally from *al-tabābna* to young police officers, private school teachers and returnees from the Gulf were better equipped to sustain the rising food and commodity prices in the area over the following years, and their presence threatened the ability of some of the EISCO workers to reproduce their class positions since it interrupted the old community networks of solidarity that existed among EISCO households. The presence of this new group in the midst of EISCO workers also introduced new consumer practices that the latter could not afford. These changes to the housing market challenged the boundaries that had previously existed between different parts of al-Tibbin and hyper-financialised the exchanges in the community. This in turn made the distinctions between those EISCO workers who were able to successfully reproduce the elements of a good life they had previously enjoyed and those who were unable to do so much more visible, as the subsequent sections will demonstrate.

III. Company, Family and Neighbourhood

While previous chapters have highlighted how kinship relations on the shop-floor affect the work regime, this chapter examines the circulation of labour in the community and the way factory work relates to wider life trends within workers' households and their communities. Parry (2001; 2004; 2005; n.d.) maps the relations between the industry and the family. He finds that permanent and contract labour in the state-owned Bihlai Steel Plant (BSP) in India have different marriage and childbearing practices and expectations which result from the different employment systems to which they are subject. In addition, he locates certain practices among permanent labour, such as the "housewife-isation" of women in the attempts to distinguish their wives from the wives of contract labourers, whose jobs often compel them to grant sexual favours. The different employment systems not only produce different material conditions but also different aspirations. The rate of suicides among household members of BSP workers are higher than those of the casual labour, largely because of their inability to meet the expectations that their employment had fostered over the years (Parry, 2012). The expectations that came with permanent employment at EISCO also structure workers' lives outside the plant, especially because they are aware of their proximity to casual workers.

Those who were more upwardly mobile, such as the residents of The City, were hit hard however during economic downturns, not only because of their expectations and ambitions, but also

due to the limited social resources they had when the housing market in the company town was liberalised and the economy was increasingly financialised. The neighbourhood relations acted historically as a form of kinship in al-Tibbin. The establishment of the company town and the localism that marked the workforce, where the majority commuted together on company buses from the same villages and towns, created proximity between household and plant. Workers, including those in The City, therefore spoke of having been 'one family' in the past and of children growing up together, of wives cooking together, of breastfeeding each other's children, establishing savings-groups in the same building and of being able to direct a visitor to the house of any member of the community. But those who occupied The City had with time become less invested in the community and were rather focused on the improvement of the living conditions of their nuclear family through practices such as securing access to credentials, buying luxury items, marrying children in upper class areas and spending time socialising outside The City with other upwardly mobile friends.

Following Lockwood (1966), it could be said that the upwardly mobile residents of The City moved from a "proletarian traditionalism", where solidarity emerges between members of the community of traditional industries such as docking and mining, and is expressed in ties of kinships and friendships becoming part of the work relationships, to an "instrumentalism", which emerges in capital-intensive and highly technologised workplaces, in which workers are alienated at work. In the latter, work serves merely as a means to an end and workers focus more on making investments in the sphere of the family. Workers who resided in The City gradually resembled the instrumental workers mentioned by Lockwood. But those among them who were not successful in turning the potential of their property in the permanent work contracts into material gains for themselves and their children found themselves at the times of crisis with little social capital in their communities to rely on to provide them with security and act as a safety net during hard times. With few friends in the neighbourhood to rely on during major occasions such as weddings and so on and few collective initiatives to generate cash or enough savings-groups to maintain a steady stream of cash, these workers were hit hard by economic downturns. The discrepancies between those who continue the path of bourgeoisification – because of their access to other sources of capital – and those who fall down the 'slippery slope' become more salient.

But unlike the workers in the UNSOR steel plant described by Mollona (2009), EISCO workers do not experience alienation at work, nor a total separation of the kinship and friendship ties inside and outside the plant. However, much like the instrumental workers described by Mollona, upwardly

mobile EISCO workers are increasingly focused on the betterment of their private domestic sphere and on consumption practices. Although EISCO workers have more control over their work, they nevertheless regard it primarily as a means to realising the aspiration of stability and to passing on their position in the social hierarchy to their family members. They share with the 'instrumental workers' described by Mollona (2009) and Lockwood (1966) a trend towards bourgeoisification, which tends to result in limited local networks of kinship and friendship.

In contrast, workers of The Housing, whose sociality resembles that of "the traditional proletarianism" are better able to accommodate the economic downturns because of their reduced expectations about life outcomes compared to the residents of The City, and because of the social ties that continue to exist in their neighbourhood to date, since they have not yet invested fully in the upward mobility of the family. Households in The Housing nevertheless continue to experience discrepancies between them, which are accentuated by the recent changes of the political economy of the community. But these discrepancies are not as extreme as those in The City. Social expectations about one's future and kinship ties in the form of neighbourhood networks are two important factors in shaping the experience of mobility in al-Tibbin.

Holmstrom (1984) proposes that kinship relations between permanent and contract workers – evident in co-habitation or in cash returns from migration that permanent labours send to contract labourers in the hometowns – do not lead to class distinctions among workers. This is however not true in the case of EISCO where to date the most salient distinction is between those who have a permanent contract (or whose family members who work on temporary and daily wage inside the plant are aspiring to attain one) and the casual workers, primarily *al-tabābna* who live in *bīyūt ʾahālī*, who cannot access the plant. Kinship relations between both groups are limited and their life conditions are very different. In fact, by asking management to give priority in employment to EISCO worker's children and excluding 'outsiders', including applicants from *bīyūt ʾahālī,* EISCO workers are able to keep their class positioning. Although the property of the permanent contract is being devalued by the larger changes in the labour market that affect EISCO workers' families, it continues to remain a major source of distinction between those that own it and those that do not.

Households in al-Tibbin are based on the cycles of conjugal units, child raising practices and the terms of the shared activities of households. Marriage is the main institution around which family life and independent households are set up. Childbearing, in turn, is the most important element of

marriage. In al-Tibbin, like most working class and rural quarters of Egypt, women are called by their first son's name, for example ʾUmm (mother of) Muhamad. In the case that a woman has no sons, she is called by her first daughter's name. Fathers, too, often take the name of their first child, and are called, for example ʾAbu (father of) Muhamad, though not as frequently as women. Once a woman has given birth to her first child, and especially as she grows older, it becomes less acceptable to use her first name and she is only called by the name of her first son/daughter. This reflects in part the importance, on the discursive level, of marriage and children to ones' identity.

In her earlier ethnography Singerman (1996) thus finds that many of the informal institutions within communities across Egypt are created to meet the goal of marriage and transferring financial resources to the next generation in the hope of maintaining wealth, reputation and status. Most calculations about life regarding career choices, education, employment, consumption and saving are made with the anticipated marriage in mind (Hoodfar, 1997). The youth between the ages of 18 and 25 constitute 25% of the population Egypt and their political economy is dominated by the material and social struggle to marry (Singerman, 2008 p.77). With this demographic in mind and the importance of marriage and childbearing to achieving adulthood in this context, the focus on intergenerational transmission of resources and on reproduction of social status is thus integral to everyday class politics in al-Tibbin.

Prior to the emergence of the studies of family history in the West, research into factory life was dominated by two teleological assumptions: that industrial life changed the family structure from extended to nuclear, and that industrial progress was based on the very separation of the two spheres of work and household. However, the findings of the Cambridge Group and those who followed suggested that the nuclear family existed before industrialisation, and that migrant workers' relations with extended kin were not broken by migration but in fact were central to the industrialisation experience (Anderson, 1971; Goode, 1963; T. K. Hareven, 1982; Laslett, 1965; Laslett & Wall, 1972). Although family historians have been criticised for producing new typologies regarding the ultimate family forms, which facilitate industrialisation, their later critics concluded that a variety of family forms and household structures existed and assisted industrialisation (Flandrin, 1979; T. Hareven, 2000; Kertzer, 1984). An alternative way to research the relations between households and factories was suggested by Davidoff and Hall (1987) in their landmark study that reconstructs the experience of middle-class families in eighteenth and nineteenth century England. They survey how ideas of domesticity in middle class families were cultivated based on conceptions of class performance in

relation to the aristocracy. They argue that "gender and class always operate together... that consciousness of class always takes a gendered form" (Davidoff & Hall, 1987, p. 13)[67]. Rather than assuming the pre-existence of diverse family forms across classes, Davidoff and Hall (1987) encourage us to think of familial inclusions and exclusions as a social principle on which class formation is essentially based. In a sense, gender and kinship are considered here as one important dimension through which class is experienced.

In what follows, I map a variety of family forms that emerged with industrialisation in al-Tibbin and examine how household structures and domestic cycles vary according to employment. Contrasting the households of people from different classes in al-Tibbin highlights how class functions as a relational concept. Looking at three generations of EISCO households, I introduce different temporalities that shape the experience of labour through "the complex juxtaposition of different rhythms of time – individual time, family time, historical time – [which] makes possible a much needed nonlinear and non-Eurocentric approach to history" (Doumani, 2003, p. 2). The ways in which time and space are intertwined in the diverse parts of al-Tibbin, make the residents' experience "multi-dimensional, uneven and always a partial process" (May & Thrift, 2001, p. 10).

I thus attempt to apprehend the changes in the domestic sphere from the point of view of their experiential nature, and not only from a structural perspective. Critiques have been levelled at the research on household structures for its lack of flexibility in conceiving kinship relations and for reproducing the categories used by the state in its statistics (Mitchell, 1991 in Mollona 2009a). To avoid this critique, the relational aspect of class formation I adopt here introduces kinship relations beyond the language of the state and the focus on blood ties and include instead wider networks of "relatedness" (Carsten, 2000). People in the company town of EISCO are wont to speak of the relations of ʿishra – intimate relations of friendship that grow with time – that developed between the neighbours and blurred the distinction between blood-based kinship and networks of relatedness. Neighbourly relations are hence of prime importance.

Researchers working in Egypt consider these relations important cultural forms that promote survival among the working classes, and constitute a form of kinship (El Mesiri, 1978; Hoodfar, 1997; Singerman, 1996). They have even argued that relationality is itself a value among Egyptian working

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[67] Similarly, others have suggested the entanglement of gender and class in the expression of inequalities (Collier & Yanagisako, 1987; Fernandes, 1997; Rofel, 1999).

classes (Elyachar 2005). Mapping the changes in the political economy of industrialisation in al-Tibbin should thus take into account not only the transformations in household structures and community relations, but also the meanings and values that shape the very experience of class.

IV. Consumption, Property and the Gaze

Consumption practices of different households across al-Tibbin are the vernacular through which class politics are best expressed. Mollona (2009a) suggests that the upwardly mobile proletariat who were being bourgeoisified at the UNSOR plant in Sheffield escaped alienation at work by making personal connections and attachments outside the realm of work through the focus on conspicuous consumption. From regular visits to shopping malls to acquiring training to work in middle class occupations such as nursing, workers in Sheffield were fully emerged in capitalist experiences that occluded their common proletarian class position, which was reflected in their inability to maintain these lifestyles when the plant was closed down. At EISCO, workers' household were similarly preoccupied with owning 'status symbols' that expressed their upwardly mobile lives. They also re-invented new marriage practices and exchanges and refashioned the way they dress to distinguish themselves. Their capitalist practices obscured the way their community was being fragmented into a bourgeoisie and a proletariat as well as the proximity of the downwardly mobile of them to casual workers on the fringes of the town.

However, I also suggest another reading to workers' focus on consumption, one which takes lead from Graeber's (2007) argument that studies focusing on consumption do not question "why we call a certain behaviour 'consumption'" and without defining it, we take it to generally mean "any activity that involves the purchase, use or enjoyment of any manufactured or agriculture product for any purpose other than the production, and exchange, of new commodities, basically anything people do when they're not working for wages" (Graeber, 2007, p. 58). He presents an alternative theorisation of consumption as involving the production of human beings in 'consumption spheres', not only as labour power but as "internalised nexus of social relations" (Graeber 2007, p. 58). This very production of people is what social life is about, which the exceptional organisation of society under capitalism makes impossible to imagine differently (Graeber, 2007).

By considering what we generally refer to as 'consumption practices' part of the way people are being produced, I highlight how they are not only a reaction to and expression of capitalist

developments but derive from a desire to be recognised and to belong to their community. To reiterate, desire always involves "a desire for some kind of social relation" (Todorov, 2001 in Graeber, 2007, p.63) and "there is always a quest for recognition involved, but owing to the extreme individualism typical of western philosophical tradition, this tends to be occluded" (Graeber, 2007, p. 63). This internalised desire for recognition is reflected in people's preoccupation in al-Tibbin with each other's looks and the idiom of the gaze, which is often occluded by capitalist developments, which changed the meaning of desires at the root of definitions of consumption from one based on the need for recognition to idioms that reflect the eating of things and the buying of useless objects to be destroyed later.[68]

To frame the relation between the two ways consumption practices can be understood - as a need for recognition and as useless capitalist endeavour - and the manner in which they relate to people's preoccupation with others' gaze, I turn to Todorov (2001). Todorov (2001) is inspired by Jean Jacques Rousseau's distinction between the two types of moralities: *amour de soi* ('self-love') and *amour propre* ('vanity') and his introduction of a third type feeling that links both, which is the "idea of consideration" (Todorov, 2001, p. 12). *Amour de soi* is a positive notion which is the instinct for self-preservation that is essential for human beings and the other. *Amour propre* is a negative one and consists of judging ourselves in contrast to others and seeing ourselves superior or wanting them to be inferior. Rousseau's contribution lies in introducing the third type of feeling, *the "idea of consideration"* which relates both moralities and is inscribed in the need to attract others' gaze and the need for people to be seen by others (Todorov, 2001, p. 12). Unlike vanity, which is a negative vice, Todorov suggests the idea of consideration reflects a basic need by species to be seen. The gaze, and particularly, being concerned with people's gaze or one's own gaze at others is an idiom by which people in al-Tibbin express their concerns regarding social change. In what follows, I show how this preoccupation reflects both a need for recognition or an *idea of consideration* at times and at others, a politics of vanity produced by the privatisation and financialisation of life in al-Tibbin. In so doing, the purchase of conspicuous objects is seen as part of the way people are produced in society and their labour is valued, as well as the constant capitalist appropriation of this labour and its value by substituting social values with economic and calculative ones.

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[68] Graeber (2007) argues that this shift towards a focus on consumption 'as the eating of things', including phantasms and illusory optics, took place through a historical process since the Middle Ages of privatisation of desires, their feminisation and the rise of property rights in the sixteenth and seventeenth century. The focus on consumption practices should therefore also be seen in the light of the rise of new types of private property at EISCO, for example, in access to contracts, social housing or other forms of wealth.

V. A Variety of Households

a. A New Bourgeoisie

The households of The City vary, but nevertheless share many similar characteristics. Their affluence is reflected in their size, structures and the life opportunities of their members. *ʾUmm* Bahgat was a widow in her late thirties, who lived in what used to be her in-laws' apartment in The City. She owned a kiosk in front of her house on one of the main streets. *ʾUmm* Bahgat's in-laws came to EISCO in 1956 from Sharqiyya. They had eight children, four of whom (three sons and a daughter) became employed in the plant and later went on to marry and live between Mayo and Turah, two cities both of which are better off than al-Tibbin. In addition, two of her sisters-in-law got educational diplomas and worked as teachers and now lived in Mayo. Teaching jobs for females and jobs in the public sector that enable a woman to be a *muwazafa* (civil servant, white collar worker or public sector employee) are held in high esteem in the community. Before he died a few years ago, Abdel Aziz, *ʾUmm* Bahgat's husband, had abandoned home and had disappeared for twenty years. *ʾUmm* Bahgat's father-in-law passed his apartment on to her family. A fourth brother had travelled to Qatar but now worked as a casual worker. So apart from the latter, the family members have successfully reproduced their fathers' social position despite the family's large size. Half of the children had secured permanent work and an apartment for the coming generations.

The retired steel workers who had become the elders of the community, and who meet regularly during prayer hours in the mosque near her house, had used their relations in helping her secure the necessary connections for the permits for her kiosk from the local municipality. This support enabled her to make ends meet. The networks that the steel workers forged at EISCO, and continue to ritually reproduce at the Mosque, thus functioned as a source of capital in the community.

ʾUmm Bahgat's household was not, however, an exception. Across from *ʾUmm* Bahgat's home, in the same building, lived Soheir, a divorced woman who occupied the apartment that belonged to her father, a deceased EISCO worker. Soheir used to be married to an EISCO worker herself before getting divorced. She now worked in the National Democratic Party's headquarters. On the second floor, Hani Radwan was an old worker whose four children worked at EISCO and had all moved to live in the upscale Mayo city.

A few blocks away on the same street, ʾ*Umm* Kamal lived with her son Kamal in what used to be her husband's apartment. She was among the first generation of those who moved to al-Tibbin, and came with her husband in 1959 after he was employed as a daily worker in the plant. He later got a permanent contract. She was eighteen when they moved and had only a preparatory school education. But her children were very different from herself and her husband. They had five children, but beyond childhood only two survived. Kamal, her eldest son, was now a worker in the plant; he lived in his father's apartment, having refurbished it. His brother was a teacher of English in a local school who was also married to a teacher. Kamal had three children in primary, secondary and university education while his brother had two children in the prestigious English section of the Faculty of Commerce. A similar pattern was common among the rest of the community in The City, who were increasingly preoccupied with the education of their children. In ʾ*Umm* Kamal's building, a first-floor neighbour had twelve children with several wives between Cairo and al-Tibbin and another on the fourth floor had eight children, also from polygamous marriages. ʾ*Umm* Kamal recounted that this was common in the past as men had settled in The City and then started flirting in Cairo while their wives in The City had thought they were on night shifts at work.

One of the eight children of the aforementioned first-floor resident was ʿAbdou, who now worked in the plant as a permanent worker and owned a kiosk in front of his father's apartment. ʿAbdou lived in one of the *imārat ḥadīthat al-tashyyīd* ('newly built buildings') nearby. He had worked in the plant since 1979 and moonlighted between different jobs that supplemented the 4000 L.E (400 GBP) income he earned at the plant. Of the eight siblings, four (including one sister) worked in the plant. Two other sisters had BAs, a third was a teacher, and one had divorced after marrying from the company town. ʿAbdou said his father was *mizwāg* ('a man who tends to marry a lot') and could afford it because workers here lived almost for free.

But ʿAbdou lamented the fact that his father had not invested in his education. This is why ʿAbdou himself had also studied recently and earned a BA in commerce, which he said made him feel quite established next to the engineers at work. ʿAbdou's wife, whom he had met at EISCO, was also employed in the plant, until he encouraged her to take early retirement when it was first offered in 2001. It was female workers who were mostly 'encouraged' to take up early retirement, on the pretext of being finally able to be 'house-wived'. Although ʿAbdou's children were not as lucky as he was, and yet, their father's capital helps them survive. ʿAbdou and his wife had four children. The kiosk that ʿAbdou owned was intended for his son but the latter preferred to look for jobs in Sharm al-

Sheikh because there were no opportunities in The City. ʿAbdou said he had opened the kiosk because he was *basaʿid ʾibni* – helping his son. But even going to Sharm al-Sheikh to look for better paid jobs in the tourist industry required some capital to make the journey and live until finding a job. It was capital acquired over two generations of permanent work that enabled ʿAbdou's son to try his luck in Sharm al-Sheikh. It was ʿAbdou that first explained to me that he was investing so much in his children because al-Tibbin life was "made of peaks and slippery slopes " *(qimam wa munḥadarāt),* by which he meant that some were moving upwards in the social ladders and others were sliding down.

Madām Zeinab was from the same building as Kamal and ʿAbdou but now lived in the *imārat ḥadīthat al-tashyyīd*. She was 51, had only a preparatory education and worked in the administrative section of the electric power department of the plant. Zeinab was one the few women who had worked on the shop-floor. She remembered that in the past there used to be more room for women to work on the shop-floor, although not in heavily manual tasks. This somewhat alludes to the relatively more egalitarian gender relations that existed with the inception of what Hatem (1992) called "state feminism" after 1952. Her upper status as a *muwazaffa* was reflected in the fact that she was called in the community by her name, Zeinab, with the title *Madām*, rather than being called by her son's first name. Her work reflected also on certain dynamics of the household. It was her son, rather than herself or the daughter that made the tea when I visited them at their place, something that was very uncommon in both al-Tibbin, or the rest of Egypt as a matter of fact. When I commented on that, Zeinab's daughter said in English that this was "a help yourself house" and her mother explained that because she was away at work most of the day, her children had learnt to become progressive about some aspects of the gender division of labour.

Like ʿAbdou and his wife, Zeinab had also met her husband at the plant. In fact, everybody in Zeinab's house seemed to have worked in the plant; this included her father, her eldest sister, her eldest brother and her younger sister, who also married an engineer from the plant. But like ʿAbdou, it was Zeinab's children that now struggled with the task of reproducing their family's position. Her daughter, who held a B.A. in geography and a diploma in computer geographic information systems, was unemployed although she was willing to work. Her son had a B.A. in history but now worked for the nearby private-sector Mefco furniture plant as an inspector. When he applied for the job he had to keep quiet about having a B.A. "It was my fault that I am educated", he told me ironically. Both her children were well into their twenties, but, sitting around their mother discussing their inability to access good jobs and having to rely on their family for a living, their maturation to adulthood seemed

to have been suspended. Though they had acquired middle-class manners, such as being more relaxed about fluid gender roles, as well as high educational credentials, they could still not replicate that life syle in their own lives without the steady support of their family.

In The City, children of the 'lucky generation' of workers who had first occupied the company town struggled with social reproduction like the rest of the workers at EISCO, but they found this all the more difficult because of the higher expectations they had for themselves and their children's potential to reproduce their position in the social hierarchy. This is also mirrored by workers who live in the upper-scale satellite cities of Helwan. For example, ʾamm Mina, the shift head in the Pate- and Sheet-Rolling Mill, was earning a salary that reached 4,000 Egyptian pounds, equal to what the head of the mill was earning. ʾamm Mina built a family house for his children in al-Mashruʿ al-ʾAmrikī, where his eldest son lived in the upper floor with his wife, the daughter of an EISCO worker, and their two young daughters. ʾamm Mina maintained a beautifully furnished house, with a fish basin, a pet dog, a large plasma screen television and an upscale kitchen. His eldest son Nageh, who had an upper-middle qualification in computer science, used to own a computer repair shop, which he could not maintain. Having lost the shop, he worked as a sales representative in a pharmaceutical company and struggled to make ends meet. When he was laid off from this job, his father bought a mini-bus for him to work as a driver. Nageh, his father later told me, suffered a stroke after a nervous breakdown, and lost his ability to speak as well as mobility in the left side of his body for a few months.

When I met Nageh a year after I had first met him during the subuʿ of his daughter ('the ritual celebration one week after a baby's birth'), I almost did not recognise him. He was uncommonly quiet, looked much older and seemed to be drifting somewhere else. While the experience of being laid off and reduced to precarious living conditions is never an easy one, it was particularly difficult for those who had lived a good life and expected to continue on the path of upward social mobility enjoyed by their families.

This anticipation of upward social mobility put different forms of pressure on various family members. Magdy, the father in the host family I resided with at the beginning of the research, maintained an extra evening job as aluminium trader in order to be able to finance the living expenses of his engineering student son, his studious daughter and his youngest son with a learning disability. Like most fathers in EISCO, he was almost obsessed with his children's educational achievement. When Rami, his eldest son, did not achieve the grades that would get him into the faculty of

engineering at a public university, Madgy enrolled him in the lower-quality but more expensive private engineering school in Mayo, so that he may still make it as an engineer and avoid the people's universities (*kuliyāt al-shaʿb*). Leila, his daughter, who was studious and smart, experienced continuous pressure from her father, who, she complained, never asked her anything about her personal life except her studies. Magdy wanted to make sure that Leila would be admitted to the faculty of medicine at a public university one day.

Although Leila, like most children of EISCO workers was not heavily involved in household chores – in contrast for example to her cousin in the village – the psychological pressure that she underwent in order to keep performing well at school, and thus to contribute to the upward mobility of the family, was taxing on her self-confidence and the ability to enjoy other aspects of her life. As Parry (2005a) shows, similar aspirations for upward mobility also affected conceptions of childhoods at BSP, for example by making parents increasingly anxious about how time punctuated their life cycles, and leaving their children more free from household chores and duties, but trapped in the roles of perpetual children.

As my neighbour in The City liked to say, The City, as a representative area for those upwardly mobile at EISCO, has produced a lot of "high ranking" people: football players, actors, women that married and lived in the Gulf or married high ranking policemen, even men in the army. The number of divorcee and unmarried females in the area confirmed this. In only the four buildings I mentioned above, there was at least one divorced and one unmarried female in each. Fathers here could often afford to house their daughters if the marriage broke down or never took place and the job market was not offering them the means to sustain themselves. In addition, as we have seen from the stories of Zeinab, ʿAbdou and Soheir and their relatives, intermarriage from within The City's community of workers was prevalent because it met the expectations of families, whereas as I explore below, the situation of the second generation living in The Housing is very different. But The City caters today mainly to those who made it in the past and were able to maintain their status. It has nothing to offer for those who are not part of EISCO. Most young people of the third generation are thus dependent on their parents and have to flee The City to look for work. They, much like sons of daughters of must upwardly mobile workers, however feel the pressure of the economic downturns much heavily than the rest because of the expectations they had about the future.

b. The Squeezed Middle

The apartment of ʿamm Lotfi in the Housing was an impressive one. ʿamm Lotfi and his wife received me in their apartment, which was decorated with fancy ceramics, a fish bowl, a niche full of china, tea sets and glasses, a widescreen TV and a big photo of their late son, which gave the house a melancholic air that none of the other fancy goods around could hide. When I commented on how nice the house was, ʿamm Lotfi told me quickly that he had refurbished the house with the money he received from his early retirement and that ages ago they had turned the balcony into an extra room. ʿamm Lotfi was born in the 1950s in Qena in the far south of Egypt, and had been employed in the plant since 1972. His father had died when he was young so ʿamm Lotfi had struggled to get a job. He had seven paternal uncles who were well off but, according to him, *shāyfīn ḥālhum* ('full of themselves'). Only one uncle was poorer than the rest and worked in the steel plant and he helped him get a job in there and in return he married his daughter as *"radd gimīl"* ('a return of the favour').

ʿamm Lotfi had four children; the eldest struggled with learning difficulties, and the second was killed in a car accident. Khalil, his third son, had an industrial diploma from the plant training school and was employed as a daily worker at Mefco, a private furniture company nearby. His youngest daughter was in secondary school. ʿamm Lotfi had wanted to secure a job at the plant for his son but was unsuccessful. Instead he decided to use the money he received when he opted for early retirement, following the death of his son, in refurbishing his house so that it would be a real asset for his children. *"qult ʾarayaḥhum laʾininā mish hanʿish luhum, fa ma yibqush maḥrumīn w ma-yibuṣush li-ḥad, ma-yibuuṣush li-ghirhum"* – ("I thought I would like to make them comfortable because we won't live for them (forever). This way they don't feel deprived and won't have to look to anybody else they don't look to others"). He went on to elaborate on what he meant by 'looking to others': *"Ili-zayyinā yikhāf ʿala wilāduh. ʿashān mā-yiqulsh ʾishmiʿna dah ʾabūh gāb luh, mā dah ʾabuh shaghāl fi-il shirka w ʾanā ʾabuya shaghāl fi il shirka"* – ("Those like us fear for their children. So they do not ask why his father got him [things] when he works in the plant but my father works in the plant [too, but didn't get me things]"). He paused for a few seconds and continued: *"ʾanā tiʿibt fi ḥayāti fa mush ʿāyiz ʾatʿibhum maʿāyā wi ʿāyiz el ʿayil yiḥis birāḥtuh"* - ("I suffered in my life so I do not want to make them suffer with me, and I want the kids to feel comfortable").

ʿamm Lotfi later explained that even when he refurbished the house, he did not allow his children to carry sand along with those working in the house. "There is no (such a thing as) children

carrying the dust, or carrying anything", concluding that "*ma itʿawidtish ʾabahdil ʿiyāli*" - ("I did not got used to debasing my children"). His son and daughter, who were present during the conversation, joined in to confirm that they had not carried or lifted anything while the house was being refurbished. What ʿamm Lotfi was struggling with here was making sure that his children would always be seen as 'the same' as other children despite the *'qimam wa inḥidārāt' or 'peaks and slides' that ʿAbdou had mentioned*. It was the appearance that met the gaze of recognition, which allowed the community to maintain itself and children to reproduce their father's position, if not by a job, then by a translation of their permanent contracts into a permanent house, conspicuous investments, or 'techniques of the self' that enabled them to maintain their status even when other households were doing better, financially speaking. Appearance was important in creating the person and the social relations in the community.

In investing in a luxurious house*,* ʿamm Lotfi was indeed reproducing the capitalist materialist ethos, especially that of those who are more upwardly mobile. But his preoccupation with the appearance of himself and his family in the eyes of others is important to the analysis. It highlights in a sense, how workers attempt to remain part of the upwardly mobile EISCO community at times when social exclusion is rampant. The focus on consumption as with acquiring *malik al-nish*, reveals a struggle not just to continue being recognised by others (and, as Lama put it, to "create one's value") but also to resist the shrinking of alternative opportunities to prove oneself that result from the deterioration of one's material conditions. Hoodfar (1997) argues similarly that females in Egypt are invested in the calculations of marriage exchanges so deeply because they are denied any other way by which to achieve recognition, be it work, education or regular socialisation outside the house. Consumption, especially among the group of workers in The Housing, unlike those in The City, who do not have a well-to-do family background becomes a means by which to achieve recognition from others, to reproduce relations in the community, and, needless to say, to live by the capitalist ethic, in which social and economic values overlap.

Such investments in consumption are particularly important because the networks among workers that helped those in The Housing survive, which that facilitate and to some extent constitute what Lockwood (1996) would call their "traditional proletarianism" (Lockwood, 1966), are being largely diminished by the liberalisation of the housing, labour and goods market. ʿamm Younes came to live in The Housing in 1986. He was originally from Suez, and had earlier lived for a time in Kafr al-ʿiluw before living in The Housing. He was married to his cousin from Suez, who did not work*.* ʿamm

Younes had three children. Nahed lived in Mayo city, and had a middle qualification; Fouad, aged 30, worked in a private company in Mayo; he had tried to get into EISCO but did not manage, even though his father had attempted to pay a bribe; and Sana was 22 and had a B.Sc. in computer science, but was unemployed. Sana had been looking for jobs but could not find any. ʿamm Younes depended on the informal saving groups in the community. He was a member of two groups: one for the house and for buying clothing for his daughter during ʿid and the other for his son to help save for his eventual marriage.

But ʿamm Younes's area was changing completely. In his building, there were at present eight new tenants and residents, including a teacher, somebody from the local council, a retired worker who made his money in Libya and someone who worked in a private company. Of the original residents, six of them had sold their houses and bought some land in the nearby area of al-*Malaʾa* to build family houses for themselves and their children. Two returned to their *balad* ('home village'). Returning to the *balad* or building new family houses in al-Malaʾa has become another way to deal with children's inability to sustain themselves and their households. The break in the traditional networks on which ʿamm Younes was able to depend in everyday relations has put him at risk of sliding down the labour hierarchy. These networks, which were needed in most aspects of life, for example in contributing to saving groups, in having friends to help during aspects of marriage rituals – such as *shayl al-ʿafsh*, where young men carry the gihāz and transport it to the house – and in the exchanges in the community on various occasions had all helped sustain the relations of the community. Although ʿamm Younes's permanent contract made him distinct from, as we shall see, the workers in the *bīyūt ʾahālī*, yet his family's inability to successfully reproduce the good life they were used to placed them in a precarious condition in the longer term.

c. The Inheritance of Loss

ʾIhab and Shaʾlan were two brothers who lived in *bīyūt ʾahālī* in al-Tibbin. ʾIhab was 30 and Shaʾlan 29. They were the eldest of eight siblings and they had originally lived in *bīyūt ʾahālī*, in the North of Helwan, in an area called ʿarab Ghunaym, in a *bayt ʿila* ('family house') together with their uncles and their families. Their extended paternal family had occupied the second floor and uncles the first and third floors. Their father had been employed for ten years in a now-prestigious military production plant in Helwan The Arab Association for Industry- *al-hayʾa al-ʿarabiya lil-tasniʿ* - but had retired for medical reasons twenty years before, which meant that his young family did not experience

many of the benefits associated with his employment. The two brothers had a middle school education, *iʿdadiya,* and now worked in a network set up as a *barrād* ('those who do metal fillings'), which is one of the most financially rewarding jobs nowadays in casual work. They made on average 40 EGP/day and an average of 1200 EGP/month (which is double what a fixed-contract worker of their age would make at EISCO). [69]

Their relatively good salaries had enabled them to marry two sisters, who had a slightly higher standard of education than theirs -the sisters had middle qualification in commerce- and whose father was an EISCO worker. They had gotten to know their wives through the sisters' brother, who worked with them now as a *barād*. Unlike ʾIhab and Shaʾlan's wives, their wives did not have the chance to work a little in a clothing shop or a textile plant to save up for their *gīhāz* before marriage. ʾIhab and Shaʾlan's sisters had married at age 18, which is significantly lower than the average age of marriage among EISCO families. None of ʾIhab and Shaʾlan's siblings had been educated beyond middle school (one of the two sisters only had an elementary education) although the youngest of the eight brothers was joining a *thanawiyya ʿāmma* (high school): as is often the case, the youngest members in poorer families enjoy the fruits of the better years of their parents. The contrast with the situation of their uncle, who was an EISCO worker and had four children is striking. According to ʾIhab and Shaʾlan' their cousins are *"mitʿalimīn ʾawī "* ("very educated") and their uncle's family *"mustawa maʿishī aqal min mutawasit w dilwaʿtī mustawa maʿishī mutawasit"* ("had enjoyed a lower than averageliving standard but now an average one").

Neither ʾIhab nor Shaʾlan had applied for work at EISCO. They both thought it needed too strong a *wāsta* (connection), which they did not have. Their younger brother ʿAli did take a job as a daily worker at EISCO in the hope of getting a fixed-term temporary contract, but lost hope after eight months and quit. He had managed to sustain his life while at EISCO by working simultaneously at a nearby workshop. Now ʿAli had a paint workshop that he had managed to start up. But the seasonality of its work made him complain of the lack of stability (*"māfīsh ʾistiqrār")*. ʾIhab also said he used to be a good student and had been accepted to continue at the middle school of his father's plant, but couldn't because it would have cost his father 10 EGP per day, which they could not afford at the time.

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[69] A *barād* is known to make up to 80 EGP/day. My guesses are that because ʾAmgad, who was assisting me with the research, was present in the interview, ʾIhab and Shaʾlan did not feel comfortable sharing their actual earnings, which is higher than what they informed me. ʾAmgad was working on a daily wage then and was not certain whether he was going to receive a fixed-term contract or not.

Although ʾIhab and Shaʾlan worked in relatively higher-paid daily jobs and made double the salary of a typical EISCO worker of their age, they both said that if there had been a real opportunity they would have liked to work at EISCO, even at half their salary. At EISCO, they said, workers get insurance, pensions, benefits and a daily meal, whereas for them "*māfīsh ʾistiqrār*" ("there is no stability") . Their third brother had fallen off a scaffold at work and broke his legs and arms but had received no compensation whatsoever from his employer. In addition, the two brothers told me that they could not join informal saving groups – *gamʿiyyāt* – among their neighbours and friends because they could not guarantee a steady income every month. While most families in al-Tibbin cover marriage costs through participation in *gamʿiyyāt*, this option was not available to precarious workers like ʾIhab and Shaʾlan. Instead their uncle who worked at EISCO assisted in paying for their marriages expenses. Their uncle bought furniture on credit from the EISCO cooperative (*gamʿiyya taʿāwuniya*), which they could repay in instalments. Needless to say, not all who live in *bīyūt ʾahālī* have access to an uncle at EISCO. In order to afford marriage they thus generally have to call on their networks who are workshop owners and various traders for exchanges based on favours.

But it was the lack of security of their house tenancy that bothered ʾIhab and Shaʾlan the most. Unlike EISCO fathers, who had managed to secure a house for their children through building a family house or owning their own houses, Shaʾlan and ʾIhab had to abide by the new tenancy laws. ʾIhab complained that this made his life very unstable because landlords were becoming exploitative in both the amount of rent they charged and the conditions of payment. He then had to move houses every couple of years. ʾIhab now lived in al-Hikr al-Bahari, renting a flat in what was originally a family house of a *tibbīnī* (someone from *tabābna*). But he had now decided to look for apartments in the more expensive EISCO company town because the landlords (i.e. the EISCO workers and their family members) did not live in the same house, which reduced despotism. He could also use the networks of his uncle to find a non-exploitative landlord who would not force him into signing an empty commercial note before engaging in a contract as many landlords customary do, or increase the rent significantly overnight and ask him to leave. Neither ʾIhab nor Shaʾlan could not easily plan for the future. They might have tried to save a little here and there, but could not join saving groups that sutain people over long period and the renting conditions made them even less secure about their living conditions.

The case of ʾIhab and Shaʾlan shows why workers at EISCO value their jobs as providing 'stability'. As ʾAbu ʾIlhami, a *tibbīnī* who lives in Tal ʾAbib, told me, "whoever had a stable job [*wazīfa*]

in the plant is now comfortable" ("*il ʾitwaẓaf ʾistarayaḥ*"). "*tiʿib mā tiʾibsh, māt mā mātsh ʿiyāluh biyāklu w yishrabu*" – ("[whether] he is ill, [or] he is not ill, [whether] he dies [or] he does not die, his children continue to eat and drink"). The life conditions of casual workers in the *biyūt ʾahālī* are strikingly different from those of stable workers; this is reflected in their household structures, their aspirations and their future orientation. The perpetuation of their lower position in the labour hierarchy is directly linked with EISCO workers' prosperity. By limiting access to plant jobs to the relatives of EISCO workers, casual workers are condemned to remain in perpetual deprivation and insecurity. This is why they represent to EISCO workers the spectre of what they could have been, had they not owned the 'property' of their tenured employment. Given the rate at which the market is being liberalised and finacialised outside the plant, EISCO workers who fail to pass on their position in the social hierarchy to their children face a similarly precarious fate as those casual labourers. Yet the focus of EISCO workers and their families on upward mobility, and the bourgeoisification of some among them, prevents them from seeing themselves as possibly sharing the same future.

d. Old Neighbourhoods and New Distinctions

The newly erected buildings – *ʿImārat Ḥadīthat al-Tashyyīd* – were built by the plant around the mid 1990s to accommodate more permanent workers. They are spread across The City and are six storeys high with four apartments on each floor. Each flat is a two bedroom apartment. Unlike the residential buildings in The City and The Housing, these were directly sold to permanent workers rather than rented. The original price at which workers could purchase an apartment in a newly erected building from the plant was 18,000 Egyptian pounds (1,800 GBP) with 4000 EGP (400 GBP) to be paid as a first instalment and then another 100 EGP (10 GBP) per month over the next ten years. This created a housing market fairly quickly, as some of those who had bought apartments sold them or rented them out to other non-EISCO families. The sales in *ʿImārat Ḥadīthat al-Tashyyīd* started a trend that was intensified later in 2006, when the plant gave workers the opportunity to buy their own houses. [70]

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[70] The houses in The City were sold to workers at 12,000 EGP in cash or 15,000 EGP on 10 years instalments; and the Housing apartments were sold at either 11,700 EGP cash or 18,000 EGP on 10 years instalments. The al-Talātāt houses of engineers were sold at 18,000 EGP on cash and the first floor and fourth floor for 12,000 EGP cash and at slightly higher rates in instalments. But within years the prices in the housing escalated that an average apartment in The City had reached up to 150,000 EGP after refurbishing. An apartment in The Housing had reached 71,000 EGP and in an auction by the plant for an empty flat it was sold for 50,000 EGP. The al-Talātāt prices have gone up to 125,000 EGP and then 150,000 EGP towards the end of my fieldwork. At the time of my fieldwork, rent in The Housing had reached 250-350 EGP/month, and in The City 350-450 EGP/Month. In contrast to *biyūt ʾahālī*, rents ranged from 130 EGP to 250 EGP to now even 350 EGP/Month.

While most often the houses were rented or sold to new fixed-term workers who were sons of existing workers, many 'outsiders' also joined the community, which changed the distinct character of the company town. As Huda, the daughter of engineer Mansour in al-Talātāt told me as she spoke of the positive aspects of life in the company town: *"kulahā mustāwayāt qurayiba min baʿḍ lakin dilwaqtī al-gudād ḥaga ṣaʿba"* - ("it was all [people of] similar status [who were living close to each other], but now the newcomers are a difficult thing"). *ḥaga ṣaʿba* ('a difficult thing'), is used in Arabic slang to speak of somebody who is of lower status or who is looked upon with disdain. The newcomers were repulsive to many of the company town families because many were from the well-off *tabābna* families, who could afford to either buy or rent in the area or because they were *'nouveaux riches'* who had made their money relatively easier through trade or by travelling to the Gulf.

The disdain that the old residents of the company town had for the newcomers was apparent in the undertones of their discourses- although some said that they simply hadn't had a chance to come in contact with them. The City residents who considered themselves almost like a middle class were particularly scornful of them.   ʿamm Khalifa, my neighbour, for example, who lived in the building opposite mine in The City, explained to me that few engineers would live in the *Ḥadīthat al-Tashyyīd* because, he added in English, the residents of the buildings were "rubbish". ʿamm Shahir, another neighbour who was himself living in a *Ḥadīthat al-Tashyyīd* building, but was originally an EISCO worker and a son of an EISCO worker from The City, also used to call the residents of buildings *zibāla* ('rubbish') and ʾUmm Bahgat, the kiosk owner in The City, complained that the inhabitants of the *sabaʿ ʿimārāt*, which were seven consecutive buildings among *Ḥadīthat al-Tashyyīd* were just *suqiyyin* ('people of the market'). But the newcomers, ʾUmm Bahgat told me, were not only in the *Ḥadīth al-Tashyyīd*, but were now renting and buying all over The City and The Housing. "Today you hear weird language being used by them, that I worry my children will catch", she said, adding that she found 'the new people' to have no manners and even argued in loudly in their houses.

ʾUmm Bahgat also lamented the loss of the gardens in the area and said that the new buildings had been built on the site of beautiful gardens that used to give the place its distinct character. The remaining gardens were now, she said, planted with narcotics, a practice she blamed on the newcomers. ʿamm Khalifa also despised the newcomers who lived around him. He told me that in the flat above him, there was a new tenant, a woman who used to live in the 'cabbage market' (there is no actual place called cabbage market, but the label was intended to show how low her status is). Her husband worked in Kuwait and this is how now they could afford to live in the City. "The City is

'Garden City' for them" ʿamm Khalifa said – 'Garden City' being an aristocratic/upper-middle class quarter of Cairo. When his other neighbour on the lower ground floor turned her flat into a partial grocery store, he said "we should all be the same" and was rather disturbed by her trade. He justified his attitude on the premise that nobody should be allowed to trade in the area, or to change the character of the buildings. While ʿamm Khalifa was explaining that everybody should be equal in the community, he then later added that others in the neighbourhood were jealous of the new car he had bought. It seemed quite ironic that ʿamm Khalifa should be arguing for the importance of egalitarian relations at the very same time that he himself was distinguishing himself from with his car. [71]

The upwardly mobile residents of The City considered the newcomers to be a threat to their middle-class status, and, as the anecdotes above suggest, attempted to distinguish themselves from them in every way possible, often by suggesting that they were violating the egalitarian nature of the community. In The Housing, however, the residents did not look at them with as much disdain. They only stated that they felt like 'strangers' in the community because they barely knew people around them anymore. They repeated stories, which were also recounted by the residents of The City, about the neighbourhood having formerly been one family and that old relationships had been based on ʿishra – (friendliness/intimacy). They said no households used to close their house doors, – a practice that still remains in some places in The Housing – the women used to bake and prepare food together when their husbands went to work, and often did their house chores collectively. Now The Housing residents had little contact with the newcomers, and apart from very formal occasions, the two groups seldom interacted. Practices of nuqta – payments exchanged by households on different occasions, such as sickness, achieving a degree, marriage, childbirth etc. – had either been discontinued with the arrival of the newcomers or became otherwise limited, and very few new-comers were members of the savings groups in the buildings or the community.

The residents of The Housing, however, experienced the privatisation of their housing and of their lives harshly because of the lack of community resources they could rely on in the face of price hikes and the marketisation of social life. The Housing residents, who were less advantaged than the The City residents, now found themselves being enmeshed with people who came from what they so as a lower background. They thus focused, like ʿamm Lotfi, on making sure that their houses were at

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[71] A car was *the* symbol of social mobility in Cairo, and commuting in overcrowded, irregular and worn out public transportation or private micro-buses was often referred to as *bahdala* ('discomfort' or 'abuse').

least distinguishable from those of the newcomers, and that their children were content and confident and not looking at others with a sense of deprivation.

The distinctions among the various groups of EISCO community appeared long before the newcomers had moved in – a fact that is evident in the differences between life in The City and life in The Housing. Old neighbours had been separated because some had fared better than others and moved away, or found lucrative jobs and ceased to interact with their older neighbours. Yet, when a new group moved in more or less *en masse* into the company town over a comparatively short period of time, distinctions between neighbours became quite pervasive. EISCO workers in turn became quite preoccupied with the threats to their status and the social reproduction in their families, which they expressed by distancing themselves from the newcomers.

VI. Conclusion

The nuanced changes that ethnography brings out highlight how the preoccupation with moving up the social hierarchy, if not maintaining one's position at least, divides EISCO community into two major groups: those who are able to produce 'stability' by turning the property of their contracts into a source of wealth, and those who struggle to remain part of the labour aristocracy, whose permanent work contracts gradually lose value because of an inability to secure upward mobility to their families or at best reproduce their current status and security. This fragmentation of the labour force over social reproduction, and their concern with securing jobs at EISCO for their children, also breaks workers' *de-facto* control over the shop-floor and silences them against repression of the state and the neo-liberal restructuring plans. Yet, to the community in the company town their fragmentation and the gradual double process of bourgeosification and downgrading are obscured by their proximity to the casual workers in *bīyūt ʾahālī*, who continuously represent for EISCO households *what they are not.*

The distinction that matters the most todate to al-Tibbin residents remains the one between those who have a permanent contract (or their family members who work on temporary and daily wage inside the plant and who are aspiring for one), and the casual workers, primarily from *al-tabābna,* who live in *bīyūt ʾahālī*. The permanent work contract is a form of property whose extension excludes other groups and whose potential value is realised by limiting EISCO jobs to EISCO families. Yet, the upsurge of food prices, shortages of housing, deregulation of tenancy laws, increase in

marriage costs and the erosion of collective resources all risk devaluing the property of this work contract when its potential is unmet. For now, this quasi property, or potential property, makes a significant difference for those who own it and enables them to see themselves, and be seen by others, as part of a different class. Class thus works as a dynamic social relation that develops in contingency with transformations in the locality. It is an on-going process which changes as new types of property emerge and old ones are devalued and groups are continually formed and re-formed.

But the changes that EISCO households experienced with neo-liberal refroms also shaped the community in a variety of other ways and strengthened, undermined and introduced various norms and practices in everyday life. The first was a reproduction of male dominance in society and the patriarchal family model, as adult sons and daughters continued to depend on their fathers in order to cope with the lack of job availability, increase in food prices, and liberalisation of rent prices. Fathers, in a sense, replaced the state in the role it played during the period of welfare capitalism. The patriarchal Middle Eastern family is thus not an acultural, apolitical, ahistorical phenomenon, but is reproduced through the interaction of domestic life with political economic transformations. In addition, the resort to co-residence and extended family households in order to accommodate the economic pressures on the younger generation devalued neighbourly relations as sites of intimacy and cultivation of kinship ties- especially with the influx of newcomers into the community and the gradual emphasis on blood ties and intra-household solidarities in order to cope with the difficult times.

The coping strategies used by EISCO households proved harder on women than men. Thus the greater portion of the burden of liberalisation fell upon women, who were encouraged to retire early in order to provide cash for their family from their early retirement packages, were significantly unemployed and underemployed because the job market favoured unemployed men over women, and, finally, who continued bearing the household chores for larger families and longer periods. Women were encouraged to marry earlier and to stay in their marriages longer, and in rural areas the aversion to educating EISCO daughters continued, especially when men, as potential husbands, were becoming less educated in line with the job market. Meanwhile, men blamed women for being interested in senseless consumption, while they, the men, worked hard. This reproduction of the dichotomy between women as responsible for consumption and men of production appears primarily an attempt by women to undo the injustice done to them by reaping as many benefits as they could to maintain their own sense of self and value under conditions that denied them any chance to do so by other means.

As education lost its significance as a vehicle of upward mobility, other ways to distinguish oneself became widespread. The rise in consumerist practices, partly brought by the gentrification of the company town, was not only senseless as the men often suggested, rather, an attempt to maintain others' gaze, to continue to feel the belonging to the community, and to make one's labour valuable- albeit all mostly on capitalist terms. The "the idea of consideration", suggested by Rousseau and later used by Todorov, as a way of understanding the preoccupation with other people's gaze reflect people's need to relate to society, while taking into consideration the growing convergence of social values into market values.

Viewed together, these developments depict a group of workers who are struggling to maintain their status and security under the increasingly precarious conditions of life in Egypt right before the fall of Mubarak. The obsession of EISCO workers with social reproduction was both an outcome of work in the plant and a cause of their continued dispossession. The stability of their employment gave them the opportunity to enjoy a good life and to expect the same for their families in the future. The hopes and aspirations they had for the future made them acquiesce to privatise their collective knowledge at work and risk their eventual layoff, in return for bequeathing their contracts to their children, which at the end were granted to a very limited few and left many disappointed. Outside the plant the collective living arrangements they enjoyed in the past, which helped them survive downturns, were devalued by their focus on meeting the social expectations of their nuclear families and the gentrification of their communities. Theteronormative bourgeois family arrangement reproduced, once more, a capitalist society.

Chapter Six: "A Changing History?" Unions and Workers' Collective Actions at EISCO

I. Introduction

In November 2008 I began my ethnographic research by gathering oral historical accounts from workers on the political left who had been active in the collective labour struggles at EISCO. My interlocutors were a mix of current and retired workers, who led, organised and participated in various labour actions in the plant as union members or as active workers. In due course, I learnt about union elections, collective actions and labour negotiations that had taken place at one of the most militant labour sites in Egypt. But I soon began to notice a certain silence in their narratives about the more recent history of activism in the plant. I found this silence intriguing. Many of my interlocutors often recounted the struggles between the early 1970's and 1989 with detailed precision, in a similar chronological order and placing emphasis on similar events and shared collective memories. Not unexpectedly, the 1989 plant occupations were most prominent of these narratives. The occupations were a landmark struggle in the history of the labour movement in Egypt. 1989 marked one of the most militant confrontations between workers and the state, which resulted in the death of one worker- ʿabd al-Hay al-Sayed Hassan-, the torture of protest leaders and the detention of around two hundred others, including members of the public who had stood in solidarity with the steel workers. The passion and precision with regard to narrative was not always evident, however, when I raised questions about struggles post-1989. I soon began to wonder if the canonisation of the 1989 strikes served as an unconscious covering over of a bleaker phase which the labour activists did not want to remember or emphasise.

A few months later, when my informants and I felt more at ease in each other's presence, some began sharing their more current concerns. A veteran activist, who had been a leading figure in the 1989 strike, and who was detained and tortured then, spoke agonisingly of being baffled by what he saw as the disintegration of the ideas he believed in and fought for all his life. He was perplexed by the nature and pace of activism in the plant today. On a different occasion, I was introduced to another worker who used to be active among the leftist opposition groups in the plant but had recently joined the ranks of Mubarak's National Democratic Party, hoping to change things from within. These separate but significant encounters encouraged me to investigate what had happened to collective action at EISCO post 1989 and what the silences, traumas and defections were about.

This chapter explores why workers' activism at EISCO, which peaked in 1989, was not sustained over the following years and did not match the momentum of the more recent workers' collective actions, which have escalated since 2006 in Egypt. Since 1989, I suggest, the state dealt with EISCO quite exceptionally to other public plants. Needless to say, the tightening of the state security grip over EISCO out of fear of a repeat of historical events, especially given the large number of workers at EISCO and the strategic location of the plant among many public plants in Helwan, stifled its labour movement. But management also attempted to silence the militant workers by offering them secured employment and relatively high wages compared to the rest of public sector.

So, in contrast to workers in many public plants whose salaries had been eroded since the inception of neo-liberalism, the salaries of workers at EISCO increased tenfold between 1989 and 2009 and by 2009 workers were earning fourteen month worth of fixed-base wages in bonus pay. When the early retirement programme, which was set up in 1994, was introduced, workers across Egypt started being laid off and thousands of workers struggled to find alternative livelihoods. Those who did keep their jobs felt insecure about their future employment prospects. At EISCO, the early retirement programme was not however ruthlessly enforced, unlike at other places. Apart from the employees who retired 'voluntarily' in 2001, when the programme was first introduced at EISCO, the rate at which early retirements took place in the following years did not reflect the ravaging dispossession and insecurity documented in other workplaces. The attempts to buy workers' consent by enabling them to maintain relatively good economic standards and secure livelihoods throughout the neo-liberal decades slowed down and altered the pattern of labour activism in the plant in the years immediately following 1989.

Other dynamics, related to work structure, living conditions around the plant and union politics, shaped collective struggles at EISCO. As highlighted in previous chapters, the plant's management fostered informal channels to negotiate work and to appease workers by capitalising on their aspirations for stability and familial reproduction. These were facilitated by attempts to decentralise decision-making under law 203 of 1991, which restructured management in public plants and increased nepotism in work negotiations. The hiring of workers' children, relatives and *baladiyyāt* (people who share the same local origins) when the plant reopened its doors for recruiting temporary contract workers in 2007 also created new channels for negotiating work. While these informal channels did not necessarily replace collective actions altogether, they did alter their pattern. Furthermore, the corporatist and corrupt nature of the single union representing workers in Egypt, the

Egyptian Trade Unions Federation (ETUF), which, since its inception under Nasser, had been an arm of the state, rendered collective action dependent on militant groups inside the plant, rather than on union representation. Since 1989, management then took advantage of the devisions and conflicts within those leftist groups that had led the movement over the years. In addition, EISCO is located amidst large and strategic public and private sector plants, which always made Helwan an area of considerable concern for the state. EISCO is also surrounded by many villages, where almost half of the workers live, and a large proportion of them own land. The location of EISCO and the multiple subjectivities of workers as peasants and workers facilitated the repression of the labour movement.

Together, the combination of these elements limited the organised and coordinated collective actions at EISCO and made room for a sporadic and individualistic pattern of workers' struggles. Following 1989 the state smothered the labour movement by using violence and repression on the one hand, and hegemonic tactics on the other. Coercion and consent were the two sides of the capitalist coin at EISCO. The Egyptian state's response post-1989 does not only reflect the tactics of a repressive capitalist state, but also highlights how workers' power forced capital to modify its strategies, as others have documented in a global context (Hardt & Negri, 2000). Meanwhile, the symbolic importance of the steel plant to Egypt's post-colonial history stood in the way of liquidation, privatisation and dispossession, which threatened other public plants. EISCO's historical past thus protected its future.

II. The State, Unions and Class Consciousness

In her ethnography of labour mobilisation in China, Lee (2007) shows how decentralisation policies of the state broke-up working class struggles into localised and dispersed forms of activism. The struggles of public sector workers who were made redundant and who went on strike against the retrenchment of their previous entitlements, became quite different from those of migrant workers, whose mobilisation, largely in private enterprises, centered on pay discrimination and on working conditions. The decentralisation of enterprises in Egypt followed the restructuring of the public sector under law 203 of 1991 on the pretext of increasing efficiency and accountability. Rather than awaiting decisions from the holding companies or the government, the plant CEOs were given authority to make decisions regarding purchases, recruitment and work policies. Every plant was also now run according to its own internal rules register, which were prepared during the 1990's. However, decentralisation policies in Egypt, like in China, localised labour struggles within different workplaces.

Building cross-workplace solidarities thus became much more challenging as fights with management became increasingly focused on internal working conditions and by-laws within each plant.

With the CEO gaining more power and authority, politics became largely based on connections with 'the man'. This was evident for example, at the public sector textile plant in Alexandria studied by Shehata (2009), where decentralisation policies increased authoritarianism in everyday work negotiations and the nepotism of the circles around the CEO. At EISCO this nepotism and the localisation of struggles in every workplace enabled management to tame the militant labour force. Thus EISCO workers did not forge resistance alliances with surrounding workers in the public, private or even informal sector in al-Tibbin, despite it being a largely industrial area. As in the case of China, collective actions were not stifled altogether, but they become much more, localised, spontenous and sporadic.

However, divisions within Egypt's working class existed before the decentralisation policies were enacted. Legislations pertaining to industrial work are largely in favour of public sector workers, who receive, at least on paper, legal protection from the state through regulated work conditions and pay, and union recognition.   Unions in particular have mostly representated public sector workers. Since its inception, the Egyptian Trade Unions Federation (ETUF) – the only legal trade union organisation in Egypt since 1957 – has been biased towards public sector workers. ETUF is a corporatist body, which is organised hierarchically between local union committees, general unions by trade, and the ETUF board overseeing the federation, with power concentrated at the top of the hierarchy. In 2000, the ETUF's total membership was claimed to be 3.8 million out of a total waged labour force of about 27 million (Beinin, 2012). The Trade Unions Law of 1976, which regulates the ETUF relations, stipulates that only workplaces with more than 50 workers are legally allowed to form local union committees, which are then represented in the respective general unions of their trades. However, in Egypt 98% of the workplaces in the private sector, including the informal sector, employ 15 workers or less. They thus have no legal right to union representation (Beinin, 2010). Although the law allows workers from different workplaces to form a unified local union, the practical difficulties of doing so have largely prevented workers in the private sector from being represented by unions at all (Beinin, 2010). Private sector workers are therefore mostly not represented by unions[72].

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[72] The first independent union to challenge ETUF was set up in 2008 by the property tax collectors, following a large strike in 2007. Since the January 2011 Revolution more independent unions are being set up, including in the private sector.

Yet, the unions' actual roles and capacities determine to what extent union representation really contributes to the fragmentation of labour struggles. Rather than an institution representing workers, the ETUF has actually been an instrument fostering the interest of the state ever since its establishment. Under Nasser, workers could only become members of the ETUF on the condition that they were members of the Arab Socialist Union, at the time the only political party (Posusney, 1997). The position of the head of the union was held by the labour minister and Socialist Public Prosecutor – *al-mudaʿi al-ʿām al-ʾishtirāki – who* intervened constantly in union elections on the plant level. In addition, union elections at all levels – from the local union committee, to the general unions, to the union board – were all heavily regulated by the state security intelligence, which eliminated the candidates it deemed threatening to the regime's stability. Not issuing candidates the statement that proves their membership in the union – possession of which is a condition for filing for candidacy in union elections – or directly rigging election ballot boxes were common practices of state security intelligence in Egypt (Beinin, 2010). Furthermore, the union board, which is made up of 23 seats, was mostly made up of workers allied to the regime. All of the 23 members in the union election round of 2006-2010 were, for example, members of Mubarak's ruling National Democratic Party (Beinin, 2010). The interests of the union leaders were thus closely allied to the state from early days, which has contributed to a general tendency among many workers to consider union leaders abhorrent.

The ETUF union was seldomly involved in affairs concerning work and workers inside the plant. Public sector wages are not decided upon collectively through union negotiations with the state, but unilaterally by the government (Beinin, 2010). In addition, collective actions were illegal until a new labour law was enacted in 2003, which acknowledged workers' right to strike, although it still made the conditions of realising such an action almost impossible to fulfill. Most of the collective actions and strikes that took place in Egypt since 1952 were thus organised outside the union structure. Union leaders and bureaucracy thus almost never organised or led strikes. Although some were supportive of workers' organic collective actions, many were often critical of the actions or reported them to the state security (Posusney, 1997; Pratt, 2006; Shehata, 2009). Posusney (1997), however, demonstrates that at different points the corporatist union was able to mobilise on issues of nationwide concern when those issues coincided with union leaders' opportunism and careerist aspirations, and when workers pushed them from below. The union's mobilisation is evident, for example, in opposing the privatisation of public enterprises and delaying the enactment of the labour law. But on matters related to economic conditions and work relations inside different plants, the union did not represent workers, but mostly represented the state (Posusney, 1997).

The corruption of ETUF and its alliance with state security institutions distanced workers from union politics. Apart from the usual recourse to union leaders, in order to provide a connection for new recruits, to sort out a dispute between a worker and a manager over a pay cut, or get a priority for the summer holidays organised by unions, union leaders contributed very little to collective negotiations of work. Union elections at EISCO were thus largely based on the politics of *baladiyyāt,* in which workers elected their *baladiyyāt* in order to provide a direct connection to union leaders that they could make use of when required. In addition, at EISCO, as at the textile plant studied by Shehata (2009) the union was prolific at organising 'exhibitions' (*maʿārid)* of household supplies and school materials, from which the union leaders benefited through the commissions they secured from the retailers and suppliers. Most importantly, the union controls the workers' social fund, which provides pensions and other valuable benefits. Their control over this fund has been a decisive factor in preventing new alternative unions from being set up.

This is not to say that trade unions in other, less authoritarian states around the world have not often been co-opted by the state. Although trade unions provide some spaces of resistance, as Gramsci argues, states have repeatedly used civil society, including unions, in the "co-optation of the class struggle, the organisation of consent and the reinforcement of hegemony" (Parry, 2008, p. 3). Marx's assumption that trade unions would become places for workers to come together and the seeds of a political party that will bring the revolutionary working class to power, has proved problematic in various historical episodes (Marx & Engels, 1948). For example, in India, Parry shows how the unions of the public-sector Bihlai Steel Plant were instruments of state hegemony and management control, whereas unions in the private sector were used to achieve private aims. The competition between unions representing contract labour and those representing public-sector workers further divided workers. In Egypt, the corporatist and corrupt nature of the single union did not lead to such tensions between different competing unions, as they were nonexistent. If in Bihlai, the presence of unions helped entrench divisions within members of the labour force in positions supporting either the contract or the BSP workers, in Egypt the absence of real unions contributed to exactly these same divisions.

As the ethnography by Shehata (2009) shows, the lack of union representation makes the negotiation between management - particularly the CEO – and workers unmediated by official institutions and dependent on workers' direct relations with the CEO. This, in a sense, made EISCO workers dependent on the relations they cultivated over the years inside the plant, and effectively

excluded the casual workers, who were striving to join the plant but had few connections inside it. It is probably why the latter were never able to set foot in the plant once jobs became scarce and connections more difficult to secure. The relations workers shared in the neighbourhoods surrounding the plant were thus deal-breakers to the politics of exclusion and inclusion. The fact that most workers came from or lived in the villages surrounding the plant, in al-Ṣaff in the south, the villages of Giza in the West of the Nile and al-shubak and kafr al-ʿiluw in the West of the Nile strengthened the relations of *baladiyyāt* in the plant and gave them wider resources to capitalise and wider connections. Casual workers around the plant who lived largely in informal housing in urban areas, for example, could not capitalise on similar relations. Housing also give EISCO workers privileges over casual workers in negotiating with the state. In China, Lee (2007) finds that workers' purchase of former welfare housing at state-subsidised prices provided an effective buffer, between the state and the public sector workers in the rustbelt area who were threatened with layoffs. Similarly in al-Tibbin, workers who purchased their houses in the company town since 2006 felt more secure and protected while negotiating work conditions individually with management.

Workers' proximity and access to agricultural land are also vital to shapping labour struggles in industrial areas. In China, for instance, migrant workers were tied to a rural household registration system, which gave them some land rights in their rural towns and villages of origin and reduced their antagonism toward the state. In, Egypt however, Toth (2002) found that in Egypt the strikes of Kafr al-Dawwār were quite militant because the laid off workers, who did not own land, could not find other work opportunities in the mostly rural areas where there were no workshops. At EISCO, the combination of the industrial and rural character of Helwan gave plant workers some opportunities to moonlight while still keeping their jobs, and those who took early retirement had a relatively better chance to start a small project or workshop. In addition, a large group of workers had, over the years, managed to purchase pieces of land in their home villages surrounding the plant (or elsewhere). Those who did not purchase land rented some and then sublet it to other rural workers. This gave workers a multiple identity as both peasants and workers and provided resources during difficult times, much like the migrant workers in China, to cover major investments such as marrying a son or daughter, providing children's university fees and so on. Although neither private sector workers nor EISCO workers received much, if any, support from the unions in Egypt, yet the difference in the security of their work, the conditions of their pay, and their relations outside the plant did not bring private and public sector workers together and neither did it subject EISCO workers to the same precarious life conditions endured by workers in the private sector.

Some of the literature on collective actions in Egypt relates their historical occurrence since 1952 to a moral economy explanation, where workers hold the state responsible for continuing to provide for them, as initiated under the estatist policies established by Nasser, and revolt when experiencing a retrenchment of their entitlements (Posusney, 1997). Researchers thus investigate the changes in pay, benefits, perks and working conditions as a motivator for workers' collective actions. While these variables have been influential in taming the once militant labour force at EISCO, a much overlooked factor is the centrality of intergenerational reproduction for workers- and more widely the relational aspect in class formation- a factor that has been key to understanding protests in other parts of the world, such as India (see for example Engelshoven, 2000; De Neve, 2008). I argue that one of the most important entitlements, which is often overlooked in the literature on protests in Egypt, is the legacy of employing workers' children in public plants. EISCO's ability to continue doing so and to capitalise on workers' aspirations for 'stability' through new recruitment of workers' relatives and through housing policies – in addition to the security of employment in the plant and the lucrative pay workers received – is decisive to EISCO not joining the momentum of protests since 2006. And it is precisely the preoccupation with upward mobility that did not allow workers' 'class consciousness' to materialise at EISCO.

The very idea that working-class consciousness will arise as a matter of historical necessity through the move from a "class in itself" to a "class for itself" was justly challenged by many who saw class as a "contingent outcome" (Hanagan, 1994) and a "continuous process" (Lockman, 1994a). In highlighting the relation between BSP permanent and contract workers, Parry (2008, p.3) argues that the "the crystallisation of their consciousness was impeded by social mobility." Likewise at EISCO, the struggles for mobility impeded the development of class consciousness of workers who were largely fragmented around securing work contracts for their offspring. As previous chapters highlighted, EISCO's labourforce was fragmented between those who managed to turn the property of their contract into a source of *embourgeoisement* for their families and those who were downwardly mobile, who were unable to use the 'property' of their contract in the social reproduction of the family. Notably, the downwardly mobile did not see themselves in the same precarious position as the casual workers, because of their focus on their skills, their relations, and lifestyle, which they shared with more upwardly mobile workers at EISCO.

III. Pattern of Labour Mobilisation at EISCO 1971-1989

In 1989 EISCO workers staged two occupations at the plant, first in July and later in August. Workers were calling for the plant's local union committee to be dissolved following its repeated cooperation with management. The collective mobilisation began when two elected board members were fired by the Minister of Industry when they exposed the union's complicity with EISCO management in supporting management's decision to unfairly increase incentive pay for administration workers only, and not to include blue collar workers. The attempts to bring down the union were remarkable given that most of the collective actions in public plants in the eighties were mobilised over economic demands only. For example in 1983, the Light Transport workers in Helwan mobilised for an increase in *per diems*; in 1984 the Nasr Pipes Company called for an increase in incentive pays; in 1985 Kafr al Dawwār workers mobilised against the increase in bread prices, and in 1986 ESCO mobilised for a stabilisation of weekly holidays (Barakat, 2007).

The complicity of the union with management at EISCO echoed the corrupt practices of unions across Egyptian public industries. The demand of EISCO workers in 1989, namely that the local union committee be dissolved, could have thus been replicated in other plants, given its wider appeal to other public-sector plants. State security's response to workers' occupation of the plant for almost 24 hours, and the successful coordination of solidarity between workers and their families outside, reflected the state's anxiety over the prospect of the escalation of the protests and its potential snowballing effect in other plants around. Security forces intervened by attacking the plant, firing live shots at workers, detaining more than two hundred of them, torturing some of their leaders, holding civil society members who supported workers, and finally killing ʿAbdel Hay. The death of ʿAbdel Hay – the first worker elevated to the status of a martyr in the Egyptian public discourse since two workers, Khamis and Baqari, were sentenced to death at the Kafr al Dawwār Spinning and Weaving Plant in 1952 – made EISCO's uprising remarkable in the nation's collective memory. The organisation of and preparation to the occupations, the sharp nature of workers' demands, the cruelty with which the state security responded and the wide support from a variety of civil society members including actors, writers and journalists, all made this event a landmark in Egyptian labour history.

The level of organisation of the occupation during its buildup, and later in the solidarity with detained workers, had taken some time to attain. The left had been organising workers in alternative spaces to those provided by the unions, although they also often worked from within the corporatist union and contributed to its tenacity (Posusney, 1997). Leftist workers at EISCO, for example, managed to gather almost 8000 signatures on a petition to overrule the union before the protests erupted. They

also formed groups in solidarity with the families of the workers, who were detained following the strikes and channelled the support coming from members of the public and the media through different solidarity committees. As Mustafa Hamdan, one of the leading members of the action, suggests, the events of 1989 were the outcome of many years of activism and collective actions in the plant. This is possibly one reason why many among the left continue to remember it with such passion and in such detail.

Workers on the steel Plate-and Sheet-Rolling Mill remember 1989 with less passion than the leftist organisers. Many of the workers I asked about the events said that they had jumped the fences of the plant when the militant workers closed the gates and ran away back to their homes; some did, however, have a more nuanced story to tell. Although on the surface the second occupation was against the union, and called for the re-instatement of the two fired board members, on another level the occupation escalated because of a *baladiyyāt* dispute.

Workers remember many versions of the story, but the one most commonly repeated has it that when leftist workers mobilised against the union and rallied workers in closing factory gates, those who were from al-Saff, to the south of EISCO – the place of origin of the once-head of the steel department, Sabry Abd Al Baki – found it a good opportunity to get their own back on the new head of the steel department, Hassan Abdel Latif, who was a rival to Al Baki. Hassan was the boss of Sabry and also the deputy CEO. When he left the plant to travel abroad, Sabry oversaw the steel department in his absence. Sabry was notorious for the commissions he made and for hiring most of his *baladiyyāt* in the steel department from al-Saff. When Hassan returned, however, he moved Sabry to another department; it was said, to curtail his influence.

When the 1989 mobilisation began, workers from al-Saff are reported to have kidnapped Hassan, locked him up in his office and humiliated him. Some workers speculate that Hassan was the one that called the state security, and that is why the police arrived at the steel department, where ʿAbdel Hay worked, and was killed during the police attempts to rescue Hassan. The precise details of the occupations vary according to the interlocutors but the common story claims that the rivalry between supporters of Hassan and those of Sabry escalated the events. So, although a certain degree of organisation was probably due to leftist labour organisers, the militancy of workers was shaped by their multi-layered subjectivity.

In recounting the story of activism prior to 1989, workers on the left often began their narrative with the 1971 action, which was the first to take place in the plant since its establishment. It was also among the first collective actions in the country during this critical time following the defeat of the Egyptian army by the Israelis in 1967. Following the defeat, workers in Egypt were encouraged to make sacrifices for the sake of the 'battle' (*al-maʿraka*). The working week was increased from 42 to 48 hours without reparation to workers; forced savings were increased from one half to three-quarters of a day's pay per month, and additional measures, such as cancellation of paid holidays, or 'donations' of compulsory pay for meals, uniforms, shift work, or dangerous jobs, were introduced in some plants (Posusney, 1997). In 1971, EISCO workers called for the introduction of new per diems and the overruling of the plant's union. Although the demand regarding the per diem rates was met, and other conditions of work were adjusted – including better remuneration for workers with middle qualifications – still, 33 EISCO workers, mainly from the left, were later detained and sent to work in different Egyptian governorates, a tactic that the plant often used against 'troublemakers'. Workers' participation in the 1977 famous bread riots in Egypt, and their opposition to a visit by Israeli President Navon in 1980 also became landmarks in the history of collective action because the demands they raised went beyond the economic concerns affecting workers' everyday life. The 1989 strikes, although many-sided in goals and tactics, nevertheless followed on from a longer history during which EISCO's militant workers raised progressive country-wide political and economic demands.

Left-wing activism in the plant also went beyond collective actions and strikes. Leftists groups played an alternative leadership and coordinative role to that of unions. Leftist cores have operated historically at the Delta Ironworks in Shubra al-Khayma, the Harir and EISCO in Helwan, and the MS & W factory at Kafr al-Dawwar (Posusney, 1997). Radical workers from these plants trained others at EISCO on engaging in everyday labour relations and affairs, which granted them and their ideas some status among workers.

A workers' publication, *al- Ṣanāyʿiyya,* was published inside the plant. It is said to have been the first self-funded publication by workers in Egyptian plants, whose aim was to help raise awareness and create solidarities among EISCO workers. Sherif Salah Al-Din, who later became a union member, recounted the conditions of publication of *al- Ṣanāyʿiyya*, with self-built machines that they hid in different places to overcome the regime's ban on leafleting and tight control of publications. The left wing party *al-Tagamuʿ* had a branch in al-Tibbin, which is now closed. The branch also contributed to working class activism by publishing *ʾAhālī al-Tibbīn-* a publication addressing the work conditions in

the industrial area of al-Tibbin, which workers affiliated with *al-Tagamuʿ* were involved in publishing. Workers' collectives (*ʾusar*) were started up inside different mills in the plant in order to maintain direct connections with workers, participate in their social life, educate some in the tradition of the left's labour activism, and help recruit new workers to their ranks. Leftist workers also remembered authoring proposals and studies on ways to amend specific workers' benefits and incentives, which they then presented to the board of directors of the plant.

Despite the corporatist structure of the union and direct state intervention in union election results, which often brought in a majority of pro-management and veteran figures supportive of the regime, some opposition workers were still successful in joining the union and working from within. The first time the left ever ran for elections in the plant was in 1979. They won many seats in the 1979-1983 election round. In the 1991 round, leftist workers also won many seats, although as a minority in a co-opted union, they often failed to serve the cause of workers' rights from within. Their presence within and belief in the corporatist union, in fact, legitimised the ETUF over the years (Posusney, 1997).

That said, the role of the left in the plant should not be overestimated. All across Egypt, actions were organised sporadically and informally (Posusney, 1997) and in many places leftist workers were unpopular because of their reputation as non-religious, as 'good Communists'. In addition, some leftist workers such as Hamdan also believed left-wing activism in the plant emerged quite late, i.e. only in the early 1970s. As products of the Nasserite regime themselves, they argued that they took some time before realising the deficiencies in Nasser's regime and policies. Six leftist EISCO workers also co-authored a book documenting the history of activism in the plant and titled it *Malḥamat al-Ḥadīd w al-Ṣulb- The Iron and Steel Epic.* In the book they argued that in contrast to textile factories, whose history of activism pre-1952 produced veteran activists who guided the movement for decades, the iron and steel industry was rather nascent in Egypt and had not yet produced its own committed core of labour activists.

Salah Al-Din also recounted the difficulties they faced in recruiting workers from rural origins- given that workers of rural and semi-rural origin constituted the majority in the plant- to the cause of industrial labour rights. He argued that those who owned some land or worked the land themselves were less interested in the struggles of factory workers. Exceptions existed, like Fawzi Mohamadein from al-Saff, a radical activist worker on the left, who was famous for having occupied the CEO's office during the 1989 protests. Some workers in al-Saff found Mohamadein's modest background- having

come from a less established family in the area- to have given him additional freedom of manoeuvre. The security's clamp down on leftist activism was also firecer in the villages, where word of mouth circulated quickly. This further reduced the support for leftist workers in rural areas. Union elections in particular were largely based on supporting one's *baladiyyāt,* especially in the rural areas around the plant, and leftist activists often chose candidates from large and established families in these areas to run as candidates. As Posusney (1997) argues, despite the left's contribution to workers' struggles, their inability to provide workers with material gains and alternatives of the size and scope unions afforded, thus prevented them from becoming a viable alternative to unions.

The movement did, however, benefit from the support of other actors outside the plant. The nearby activists in the Helwan textile plant, Harareyat plant and aviation plant, already established in the activist tradition and in championing workers' rights, helped spread awareness among EISCO workers and encouraged them to form their own movement. The Tagamuʿ party, which when established became a hub for many of the undercover communist and socialist groups active in Egypt for many years, also strengthened the opposition to the state at the plant – especially for a short period in the 1980's when Tagamuʿ was heavily involved in the workers' cause. The Tagamuʿs relation with the labour movement later turned controversial when it adopted less confrontational tactics with the state. This started as early as 1989, at the very beginning of the EISCO protests, when Tagamuʿ party's mouthpiece openly critiqued workers for their militant confrontations. Over the years, my informants argue, left-wing groups in Egypt grew distant from the workers' movements. This rift grew when many groups of the left adopted Stalinist ideology, which distanced them from supporting workers' collective actions. Salah Al-Din however finds that working closely with veteran leftist figures, such as Egyptian labour and civil rights lawyers Nabil al-Hilaly and Youssef Darwish, and textile trade unionist from the pre-Nasser era, Taha Saʿad Uthman, shaped his class consciousness and remained a source of support and inspiration throughout his and other activists' life.

IV. Labour Mobilisation at EISCO post-1989

In an unprecedented event in 1991, eight workers from the left at EISCO won union seats (out of a total of 21 seats) in plant elections. Saber Barakat, veteran labour activist, explained in a public talk that across Egypt, a large number of leftist workers in public enterprises won the 1991 union elections. The regime had refrained from heavy-handedly interfering in the election this round in an attempt to

test the capacities of the left. However, Barakat argues that members of the left did not make optimum use of this opportunity. Many of my informants agreed with Barakat's observation and explained that union membership is stifling for leftist activists, even when they are a majority, because, as Salah Al-Din put it: "we get easily overwhelmed by the bureaucracy and level of negotiations the corporatist union work involves". In 1993, the union at EISCO was dissolved after charges of theft and negligence in maintaining accurate financial accounts were filed against union representatives. The informants who were part of the union then, explained how members of the left had been tricked into holding the treasury seat of the union, which other political groups were very careful in avoiding, and thus ran the union finances without sufficient training in or understanding of the requirements of such responsibility.

Dissolving the first leftist-led union in the plant was detrimental to both their reputation and future work in the plant. Hamdan called the 1993 event *bidāyat al-intikāssa* ('the beginning of the setback'). In the following elections of 1996, only four members of the left won union seats. Plagued by the reputation they had acquired in 1993, they were back to being a minority in a pro-government majority led union. The factionalism that began to arise among the groups from the left, and their disputes regarding the different strategies to adopt for their labour struggles, did not help their already weak position. In the 2001 elections the number of leftist leaders elected in the union was further slimmed down, and in the 2006 elections only one leftist worker was elected. He was an incumbent union member since 1991 who had a large following among his *baladiyyāt* from the village of Shubak because of belonging to one of the large landowning families. Becoming a union member gave him and his family added 'prestige'.

Much like the record of union elections, the record of collective actions at EISCO post-1989 was also not promising. Apart from some mobilisation against the early retirement programme, including a short protest in 2003, very little large-scale mobilisation took place. Most of the actions that erupted concerned a single mill and often raised economic demands regarding incentives, per diem pay, perks and benefits. Workers often collectively refused to receive their pay on payday during these actions as a tactic to make their voices heard. But nothing was on the scale of the pre-1989 actions. None lasted longer than a day and most were quickly suppressed by state security.

During my fieldwork starting in November 2008, a few labour actions took place in the plant, but were neither organised nor premeditated and were settled individually with little involvement

from either union members or leftist activist workers. Magdy, the father in my host family and a Christian worker at EISCO, went on a hunger strike in early 2008 when a fight between him and a union member ended with his transfer from one mill to another, in addition to a cut to his incentive pay. His ten day hunger strike, which resulted in his hospitalisation, was ended when the company management and state security negotiated with the coptic church in Helwan to pressure Magdy into ending his strike. Magdy received some support from leftist activists at EISCO and from various legal support centres, but it was the Church that cut the deal and tricked him into acquiescing by promising to revoke the decision to cut his incentive pay.[73] The state and the church's promise never materialised and it was only a year later after threatening to sue the plant that his paycut was revoked.

On a different occasion, a one day strike took place when fixed-term contract workers in the transport department refused to drive their buses in the evening. Their action followed management's decision to abruptly terminate the contract of one of their colleagues. The workers also used the occasion to demand that their fixed-term temporary contracts be turned permanent. Management promised to reinstate the worker, which happened a few weeks later and a few months later, the same bus drivers were given permanent contracts, as related in chapter four. Bus drivers were particularly strategic to the plant and hence their action were quite successful. Another strike also took place when workers protested the CEO's decision to make their buses leave an hour late in retribution to his spotting of a few workers outside the gates before the end of working day. This ended quickly as soon as workers were made free to go. Most of these actions thus happened irregularly, often in response to an abrupt management decision. They were also not premeditated by ongoing mobilisation and did not involve a lot of organisation from workers and activists in the plant.

In the following paragraphs I suggest some possible explanations to the change in labour tactics at EISCO and the dwindling success of pre-planned and organised actions. In contrast to many public plants, workers at EISCO have maintained relatively good economic standards throughout the neo-liberal decades – reflected in their general pay levels, perks and economic benefits. Economic standards hence contributed to the slowing down in labour activism post-1989. However, the work structure, living conditions in the surrounding area, and workers' aspiration to share their 'good life' with their children have refashioned labour relations, and consequently also the pattern of collective action at EISCO.

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[73] The bishop's main support figure was a businessman, who was always present at the church's premises, and who also was involved with state security intelligence. He was the primary figure involved in the negotiations with the latter.

V. Cracking Down on Dissent

Following the events of 1989, EISCO's management and the state security became apprehensive of any collective action that would lead to "another 1989". "If EISCO rises, everything else rises" Saleh, a leading figure in EISCO's administration, explained when workers went on strike after the CEO locked their buses in. In his informal chat, he recounted why actions at EISCO were still closely monitored by state security. His description recalled memories of the sleepless nights he spent in 1989 being forced to make workers' files available to state security intelligence. His conclusion was that the sheer numbers at EISCO, its location among many public industries – such as the cement, coke, and water companies – and the memory of 1989, have all contributed to the heavy-handed approach to workers' activism at EISCO

Saleh told me that state security personnel are often on the phone with the administration during pay times and especially when they learn that workers in a mill are planning to strike and refuse their paychecks. The open channels between the plant security and state security allow the latter to monitor any mobilisation in the plant, he added. These channels, it is worth noting, were also pervasive at the public sector textile firm studied by Shehata (2009). Saleh disapprovingly recounted seeing state security personnel rigging union election results over the past few years, when he oversaw the vote counting. What Saleh recounted however, seemed unexceptional when on another occasion, one of the ex-leftists unionists gave me a leaked document from the CEO's office that dated back to the late 1990s. This document was a letter sent by state security intelligence to the administration in all public-sector firms asking them to be alert to labour actions against privatisation policies and to ensure workers behind these acts were being cracked down on. These overt attempts to control workers' dissent were thus typical of the police state that Egypt had become over the past half a century or so.

But the state's policing system was effective partly because other indirect tactics helped to supress workers' dissent. For example, since the 1996 union elections, management introduced a new system whereby elections would take place in every mill separately and then later become aggregated. This replaced the old system of voting on plant-wide candidate lists. These new voting bylaws, my informants explained, meant that activists from the same political groups, who worked in the same mills, were now competing against each other, thus reducing the group's possibility of winning a majority of seats in the union.

In addition, what workers referred to as the *taṭfīsh* ('forced quitting') policies during the Aly Helmy years were crucial to shaping collective labour politics. [74] Aly Helmy's management round coincided with the peak of neo-liberal policies in Egypt, which were quite draconian in controlling workers' mobility and time and often forced them to retire early. Some of these policies, for example, prohibited the trading of goods and services inside the plant. The revenues made in the workers' collectives – the *ʾusar* – from starting up small projects, such as running a mill cafeteria, were thus stopped and funds available for awareness-raising or social activities within the collectives were cut. Other roles previously undertaken by workers' collectives were retrenched. Management, for instance, used to allocate some of the production benefits of the entire mill to the mill's collective, which in turn invested and distributed them. When this practice was interrupted, workers' collectives lost more of their autonomy. The prohibition on trading inside the plant also lowered the sale of activist publications. *Al- Ṣanāyʿiyya,* for example, had previsouly generated funds for the movement's activities: each copy was sold for 10, and later 25, piasters. With the new policies, the publication stopped functioning as a vehicle for raising working class consciousness and solidarity. Even simple things such as posting the collective's agreed-upon rules, which my leftist informants remembered vividly, were banned with the new despotic managerial practices. Given the restrictions on workers actions and their collectives, engaging workers in the cause of workers' activism became ever more challenging at EISCO.

VI. Decentralisation and New Ways to Negotiate Work

The introduction of law 203 in 1991, which clustered public plants under different holding companies, was meant to allow greater freedoms in decision-making regarding the liquidation, privatisation, reduction in size and breakdown of the holding companies' subsidiaries. On the shop-floor of a public textile firm, where Samer Shehata conducted ethnographic work, instead of decentralising decision-making by giving more powers to direct supervisors on the shop-floor, the new law fostered informal ways to negotiate work by giving too much unchecked powers to middle-ranked supervisors (Shehata, 2009). Similarly at EISCO, when workers remembered the good old days, they often spoke of effective foremen, *mulāḥzīn ʾakifāʾ*, who mediated between workers and engineers. They shared stories about how as young workers they were penalised if they spoke directly to the head engineers and how when a worker had a complaint, he wrote it in a letter, which he gave to the

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[74] Aly Helmy was the CEO of the plant between 1991 and 2005.

foreman to pass on to the head engineer. Today, by contrast, as chapter two illustrated, workers do not esteem engineers as highly and often comment on the latter's increased presence on the shop-floor. Engineers and head engineers were often seen on shop-floors chatting to workers, directly administering holidays, incentive pays and penalties, and negotiating the workloads directly, thus taking on the roles previously played by foremen. Decentralisation policies, in some respects, inflated the engineers' responsibilities on the shop-floor without increasing their power. Informal ways to negotiate everyday work were thus highly dependent on cultivating relationality on the shop-floor.

The attempts to decentralise decision-making thus gave workers direct channels to affect management and advance their positions. Some workers, albeit the powerful and the better connected ones, benefited from this arrangement. But so did the security personnel in the plant, who collected more gossip and information by monitoring these informal networks. In applying the decentralisation policies workers were also recruited to become informants on their colleagues. During the early retirement program, workers often repeated to me, workers reported on their colleagues who had a second job, a second house, or were sleeping at work, all of which were used against them in forcing them to accept redundancy during ʿAly Helmy's time. Informal negotiations thus rendered collective actions less pre-planned and more sporadic. That said, such negotiations cannot replace collective action completely, given that the informal system is not fair to everybody and some would likely resort to alternative collective actions to gain their rights. The widespread assumption that formal and informal politics are mutually exclusive must therefore be disentangled.

VII.   Labour Law 12 and Implications at EISCO

At EISCO, the new labour law 12 of 2003, which enabled public plants to hire fixed-term temporary contract workers, also spread informal politics and tied workers' interests and those of the state. As mentioned earlier, when in 2007 EISCO reopened its doors to recruit fixed-term temporary contract workers, recruitment criteria gave priority to workers' sons, thus attempting to appease workers and buy their support for the unpopular neo-liberal policies. Giving priority to workers' children in employement existed since the inception of the plant, but with limited job opportunities, employment became restricted to a privileged few who were sons, relatives or *Baladiyyāt* of permanent workers. In fact, permanent workers became the main recruiting agents in job-search networks. By exploiting workers' aspirations for stability and incorporating kinship relations into the production regime, the

plant thus controlled dissent in the plant.

Temporary fixed-term contract workers were denied union representation by ETUF under the new labour law. But midway through my fieldwork at EISCO temporary workers were allowed membership in the union. As I learnt later, the financial resources of the social fund run by the union were being depleted. The shrinking labour force of permanent workers was jeopardising the contributions to the fund. Thus the head of the union decided to include temporary fixed-term contract workers in union membership in order to benefit from their contribution to the social fund. Although union representation contributes only occasionally to everyday politics at EISCO, temporary workers' membership in the union further eliminated potential antagonisms between permanent and temporary workers.

Like at EISCO, many public sector plants that went on strike in recent years recruited permanent workers' sons and were also subject to the new labour law. So why did permanent workers elsewhere then still participate in collective actions? What seems to have been decisive in the configuration of the new labour law at EISCO is the rural nature of its surrounding area, where almost half of the workers reside. The dependence on permanent workers in the recruitment of new fixed-contract workers coincided with the management's preference for hiring workers from the surrounding area, which is predominantly rural, to cut down on travel and housing costs. EISCO has thus seen an increase in the number of workers who come from rural and semi-urban backgrounds and a general trend towards the 'ruralisation' of the labour force can be spotted.

For example, workers now ironically say that the plant's workforce is predominantly from the nearby villages on the west of the Nile. The head of the union, who has been in place since 1993, and is himself from Shubak, on the west bank of the Nile, is said to have recruited most of his *baladiyyāt*, and the head of personnel relations, from Badarashein, also to the west of the Nile, is also said to have favoured most of his *baladiyyāt* in recruiting new staff. This general belief is confirmed by the results of a survey I conducted at the Plate- and Sheet- Rolling Mill. Of the 70 permanent workers, 15 had originated in villages to the south of the plant (al-Saff and al Wasta), 20 had come from villages on the west bank of the Nile next to the plant ('ayat, Shubak, Badrashin, Hawamdiyya, Abu Ragwan and Marazi'), 7 were from Helwan, 11 from Cairo and 16 from other governorates across Egypt. But with the temporary and daily workers there were no workers from other governorates and very few from Cairo. Thus out of the 30 temporary workers on the shop-floor, 11 were from the villages of al-Saff, ten

were from villages on the west of the Nile, eight were from Helwan and only one from Cairo. Daily workers reflected a similar pattern. Out of the 16 workers who filled in the survey, 6 were from al Saff to the south of the plant, 6 were from villages to the west, and 3 were from Helwan; one abstained. The melting pot that EISCO used to take pride in being was therefore being replaced by a rather localised and ruralised labour force.

Engaging workers who live in rural areas in the cause of the workers' struggles has been a difficult task for my left-wing informants, who repeat that workers who have more than one source of income, especially land tenancy or ownership, tend to have less interest in taking part in collective action in the plant[75]. In addition to having more than one source of income, workers from rural areas also tend to continue to live in their extended family houses, and many marry their cross-cousins. Both reduce the cost of living. In the case of EISCO, workers from rural backgrounds who became part of activist circles in the plant were more often members of bigger families who had wide political influence in their own *bilād* (local areas). These men often benefited the movement by their ability to rally large numbers of people, especially during elections, and in turn, they benefited from the prestige of union membership. Further research is needed on the relation between land holding, tenancy type and activism at EISCO, especially given the changes in the land tenancy law in 1997. But thus far, one can only infer from the experience of my leftist informants that workers of rural background, whose numbers and political weight have both increased under the new recruitment strategies, are less likely to be engaged in collective actions regarding work conditions in the plant.

VIII.   The Demise of the Left at EISCO and the Muslim Brotherhood

The changes that the groups of workers from the left have witnessed in their internal composition and in their strategies led to the dwindling of activism in the plant. The absence of new blood, especially that of young workers, in the leftist groups has been integral to their demise. The halt in recruitment for more than sixteen years did not allow an easy hand-over to a newer and energetic

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[75] In the survey I conducted, out of 70 permanent workers, 43 said they had no agricultural land, 17 said they owned land (and one said he had sold it); three said they rented land, one both rented and owned land, and six abstained from answering. These numbers must be taken with a grain of salt because many of the workers were afraid of declaring land ownership. One worker asked if this was to prove that they were rich and told me he was not going to fill the survey and ʿamm Mustafa Hakim, who always spoke to me about the land he owned, wrote that he did not have land. Of the 30 temporary workers, 20 said they had no land, nine said they owned land, one both rented and owned land, one rented land and one abstained. Of the daily workers, nine said they did not have land, two owned land, two both owned and rented land and three rented land. The extent of land ownership and tenancy at EISCO shows that although it is not predominant it is still relatively common among EISCO workers.

generation. Not only did new fixed-term temporary contract workers not have the security of employment, which might prompt them to engage wholeheartedly in labour struggles, but the new workers also had no direct experience of workers' struggles that took place in the plant's recent history that would inspire their activism.

In addition, members of the left, who led workers' struggles in the plant prior to 1989, were later divided into two competing groups. The tensions between (and among) both groups significantly undermined their fight for a just working environment. The first group was supportive of the Tagamuʿ party with its non-confrontational policies. It had started a few independent initiatives which refused foreign funding, but it is constantly rather short of funds, which limits its activities. This group is led primarily by one of the two leaders who were detained and tortured during the 1989 uprising. The other group, which is led by the other leader of the 1989 uprising, had established a labour activist centre that accepts foreign funding and is involved in giving support and guidance to workers. As informants on both sides told me, the groups unfortunately ended up competing with each other in a rather personal manner, which weakened their chances of recruiting new people, who were easily baffled by these internal struggles. These struggles became more visible when the two groups tried to reach consensus over union candidates to support in elections, or in putting together stronger actions at EISCO. Ideological disagreements regarding the best paths to activism are quite common throughout history, but when the tensions run deep, they turn friends into rivals and the personal investment in these rivalries seriously harms the overall movement. EISCO activists today acknowledge, albeit sadly, that they are headed in the same bleak direction.

The weakening of the Tagamuʿ party over the past two decades, as a result of its unassuming approach in the nineties and its corrupt and at times pro-regime practices in the 2000s, reduced the support that leftist activists received at EISCO. The demise of Tagamu' is evident the closing down of their branch in al-Tibbin and the fact that the labour meetings in their Helwan branch are attended by a mere handful of workers. The rise of activist centres championing workers' legal rights in Egypt has supported workers in taking their cases against management to court. Those critical of the role of legal labour centres, however, share Lee's (2007) concern that recourse to legality legitimises state power and reduces militant and revolutionary alternatives among workers' collectivities. The gradual rise of the Muslim Brotherhood in al-Tibbin and inside the plant since the late 1980's, when Sadat gave them wider space for operation, is another important development. The Brotherhood's leading figure at EISCO, Ali Fath El Bab, won a seat in parliamentary elections, which gave the group some support

inside EISCO. In recent years, leftist groups, whose influence is now significantly weakened, have had to coordinate with the Muslim Brothers during union elections. The Brothers' strategies, however, are significantly less radical and often averse to confrontation and collective actions. The developments within the groups on the left and in the surrounding institutionst thus changed significantly the pattern of organisation at EISCO since 1989.

IX. Conclusion

This chapter has explored why EISCO did not live up to its reputation as one of the militant sites of labour activism in Egypt following the uprising in 1989, and why, when a new wave of labour protests emerged in 2006, it did not reach EISCO. I have shown how the use of direct violence and heavy-handed interference from state security intelligence changed the protest dynamics at EISCO. The state's attempt to co-opt workers through lucrative pay and the security of their contracts also slowed down activism at the plant.

I argue that a widely overlooked factor in understanding changes in mobilisation at EISCO is the centrality of social reproduction for workers. The literature on labour protests in Egypt generally ignores the influence of employing existing workers' sons in public plants. EISCO's ability to continue recruiting workers' sons, relatives and *baladiyyāt* and to capitalise on workers' aspirations for 'stability' slowed down the momentum of protests and turned the pattern of activism towards smaller, less organised or pre-planned actions. The preoccupation with social reproduction and the fragmentation of workers between bourgeois and proletariat restricted a class consciousness from emerging among workers.

The absence of real union representation did not bring private sector and EISCO workers together in collective actions. The localisation of struggles and the emphasis on informal networks in recruitment and in the organisation of work, did not enable both groups to see their struggle as dependent on one another. In addition, the ruralisation of the labour force with the new recruitments at EISCO also undermined the need for collective actions, as workers experienced their labour from the viewpoint of their multiple subjectivities. The lack of new recruitments for 16 years across the public sector also weakened the rank and file of leftist groups, who became entrenched in personal disputes between their leaders. The chapter thus argues that the class

consciousness of the workers was impeded by the politics of social mobility and the focus on the socially reproductive aspect of their labour. Such focus on social reproduction, similar to Mollona's (2009b) case, prevented workers from seeing their labour as relational and enabled permanent workers to acquiesce to the sharing of their skills with younger workers. Their acquiescence to state policies, in turn, continued to ensure their survival at the expense of exploiting other casual laborers outside the plant, and restricting their access to the good life they- the permanent workers- had enjoyed. The entitlements related to the wellbeing of their families, which workers held the state responsible for, made them unable to antagonise management, which continued to exploit their dependence on them and tightened its grip over their actions. The struggles in the plant thus focused on the very persona of the CEO or on the corruption of the union leaders. Corrupt individuals and not state capitalism were deemed responsible for EISCO's demise.

Conclusion

Since Egyptian labour protests escalated in 2006, a recurrent demand has been to give priority to permanent workers' children in the allocation of new jobs in the public sector. Such demand has equally been championed by some of the new progressive independent trade unions that sprung up across the country following the revolution in 2011. Daily-waged and temporary workers now also stage protests on nearly a daily basis requesting permanent work contracts. The militant tactics they adopt in making their voices heard, despite their lack of job security, attest to the significance they attach to long-term tenured employment. In this work I have examined the politics around tenured employment in EISCO, one of Egypt's oldest state owned plants. Ethnographic research with workers in al-Tibbin showed why the access to permanent work contracts is such a widely popular demand in al-Tibbin, as elsewhere in Egypt, and explained why public sector workers find that bequeathing their work contracts to their children should be a right. At EISCO the everyday politics around securing the future of ones' offspring by passing on one's work contract was partly behind management's ability to silence workers against state repression and neo-liberal dispossessions.

Workers' pre-occupation with bequeathing their contracts to children suggests that capitalism works in multiple and complex ways, often experienced in contradictory terms by workers. Marx (1976) posited that capitalism expands through constant innovation in the means of production, which has often been understood to mean innovations in technology. But expanding our understanding of production to include the four moments Marx and Engels (1970) highlighted in the *German Ideology*- that is the production of goods, social relations, people and needs- it is easier to conceptualise 'the means of production' as more than just physical capital and money. Two ways by which capitalism maintains its grip in al-Tibbin are the innovation in property relations and the re-appropriation of social values into new calculative and economic practices. To continue generating surplus new private properties emerge, others are devalued, old collective properties are privatised, and the meanings people attach to their labour is re-appropriated.

On the shop-floors of EISCO permanent workers have *de-facto* control over production. They are almost like artisans, who take pride in their skills and the relations they fostered inside the plant over the years. When capital investment in renewing machines was curtailed following the neo-liberal reform program, workers' skills and networks became even more important as a replacement for these investments. Counter-intuitively, permanent workers experienced the restructuring of the plant

and the losses it was incurring as an increased control over the work pace. Their experience was thus contrary to what Harvey predicted regarding time-space compression that would accompany post-Fordist neo-liberal expansions (Harvey, 1989). Older forms of distinction on the shop-floor between workers and engineers were also contested. With the worn-out machinery, the central political control, and the skills and knowledge that permanent workers acquired, engineers' access to educational credentials no longer functioned as a marker of status. If educational qualifications acted as a type of property in the past, it was now being greatly devalued. On the shop-floor of EISCO, quite unexpectedly, neo-liberal transformations empowered permanent workers and challenged the status and control of middle management.

Despite their relative power on the shop-floor and the collective knowledge embedded in their skills, a form of "limited base" or "collective property" (Gudeman, 2008), permanent workers were gradually acquiescing to their own demise through their pre-occupation with hiring their offsprings at EISCO. Their work contracts, with the protection it guaranteed their skills, were thus treated as a quasi-property right, which they could bequeath to their children. To protect their children against the precarious life conditions that curtailed mobility and dispossessed lives outside the plant, workers invested themselves in getting them to work in the plant. The competition over such futures made them consent to their own gradual phasing out and the privatisation of their collective skills as they were transmitted to a new generation of temporary workers.

The introduction of temporary work at EISCO in 2007 gave permanent workers more control and enabled them to exploit temporary labourers at work, who in turn agreed to their exploitation in the hope of securing a permanent contract. Both groups happily said they were 'like father and son'. Given that many fathers secured their children work in the plant, this idiom made sense. But the fictive kinship idiom and the presence of some real fathers and sons occluded the fact that a large group of permanent workers were not able to get their children hired in the plant. Instead permanent workers and their offsrings were left to compete over a limited few job openings. Their competition became institutionalised when the plant introduced daily-waged work as an unofficial entry route to the plant. A new hierarchy emerged: powerful fathers got their children permanent work, fathers with less social resources secured daily waged work, and those who could not afford to sustain them while on daily wage or had little social resources, got none in. The hierarchal re-arrangement of labour at EISCO into daily-waged, temporary and permanent was regulated by waiting times, expectations, speculations and personal investments, which turned their aspiration for stability (*'istiqrār*) and their

hope to continue enjoying the good life they had in the past into a competition over job security and contract bequeathing. The widely appreciated value of 'istiqrār was thus re-appropriated under capitalist state practices and turned from a social value into a market one that allowed the regime further political control.

This was clearly identifiable in the EISCO company town, where the spatial arrangement of al-Tibbin was organised over the politics of social reproduction and households' abilities to provide a good life to the next generations, to secure means to reproduce their position in the social hierarchy or to move upward. Those with a permanent contract and successful in capitalising on it were becoming a new bourgeoisie. Others struggling to make sure that their children will have some security in the future were fighting against sliding down the social hierarchy. But the politics of the upwardly and downwardly mobile EISCO workers largely depended on excluding others from working at EISCO, primarily those who had no relatives or fathers in the plant. The relational politics of class were expressed through the access to a permanent contract as property. While some permanent workers were now a new bourgeoisie, casual workers on the fringes of the company town, with few connections in EISCO, remained perpetually proletariat. These interconnections, this thesis has shown, are at the heart of the on-going class formations and class politics in al-Tibbin.

Permanent workers' power, which were evident in large collective mobilisations in the past, was dreaded by management and the political elite. Permanent workers' skills and ability to run the work with very little resources were vital to the protection of production. Their power forced management to continuously re-fashion the mechanisms of labour control at EISCO. EISCO played a predominant role in the history of nation-state making and had a symbolic importance to the successive regimes. It was thus treated quite distinctively from other public plants and its labour movement was tamed over the past three decades. If collective consciousness was ever present at EISCO, it was now impeded largely by struggles for social mobility. In yet another historical instance, the emergence of new private property, here a quasi-private property right in work, privatised lives, fragmented communities and engendered new class divides.

The lines of class are thus continuously reworked through innovations in property relations, the way social practices, values and resources are colonised by market practices, and contingent developments in the environment (here al-Tibbin). Class politics is also expressed relationally through competition over social and intergenerational transmission of resources. This is essentially because

labour itself is relational (Mollona, 2009a) and immaterial. It follows that EISCO workers are not best described as a privileged aristocracy of labour. Rather their ability (or inability) to turn the potential property of their permanent contracts into a source of long-tem security for their households, which today divides them between a bourgeoisie on the one hand and those who risk joining, in the near future, the precarious proletariat on the fringes of their town, on the other hand. The politics of gender and kinship in al-Tibbin have been entangled with contestations of class in a way that "place[s] the domestic domain in economic and political history of the Middle East"(Mundy, 1996, p. 90).

A better understanding of transformations in class relations in al-Tibbin would require research into a number of themes. The 'property' in a contract needs to be situated against the other property relations which conditioned EISCO workers' lives. For example, land ownership is widespread among EISCO workers, a large majority of whom reside in villages surrounding the plant. Mapping out the trends in land ownership, could provide a complex and critical understanding of how competing claims to entitlements and inequalities inform one another. This should also allow a systematic tracing of the various types of resources that upwardly mobile EISCO households depend upon in providing opportunities for a better future for their members.

Furthermore, research in the villages around the plant could highlight how relations of *baladiyyāt* complicate the inheritance of permanent contracts between the formal dichotomy of individual (i.e. sons and daughters, or direct lineage) and communal (public) (Hann, 1998). The preferences, timings, and nature of negotiations around the devolution of contracts between kin and *baladiyyāt* could shed light on the continuum between the individual and the communal in the social life and the community values that inform workers' life choices and practices.

Researching the implication of the codification, in plant regulations and state policies, of the practice of bequeathing contracts to one's offspring could also inform our understanding of community relations and class inequalities. Further research could thus look into how the new independent unions, which have sprung up across Helwan, negotiate this right from a mere custom in public plants into an official legal entitlement. Research into such codification could also reveal how claims to relationality, based on blood ties or reference to place or *baladiyyāt* among workers, are hierarchically re-arranged.

The successive waves of revolutions and uprisings that the Arab world witnessed in the recent years and the relative relaxation of state security's policing of everyday lives suggest that the heroic people behind these events have given researchers new freedoms and opportunities to conduct ethnographic research on labour and to study the economic practices of the state. More research on the economic anthropology of the Arab world would clarify not only how despotic regimes persisted or were toppled but how capitalist policies are refashioned and reproduced under the new political conditions.

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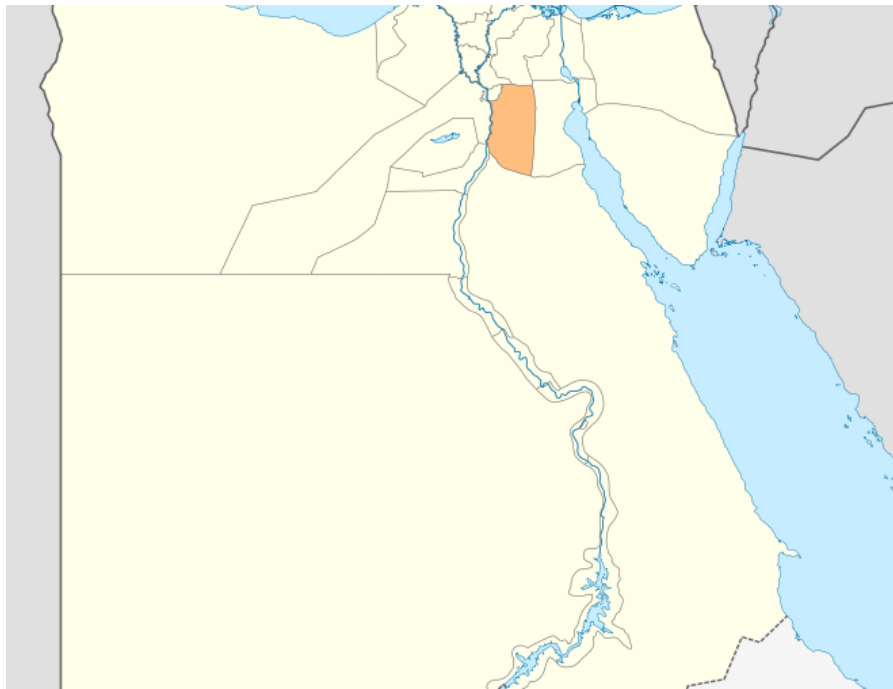
Appendix

Figure 1: Cairo as it Appears on Egypt's Map
(Map Courtesy of Creative Commons of Wikimapia).

Figure 2: Helwan (spelt Hulwan) in the South of Cairo
(Map Courtesy of Ahram Online Website)

Figure 3: Egyptian Iron and Steel Company and Adjacent Company Town
(Red area indicates the plant's borders, Blue area indicates the company town's borders)

(Map courtesy of wikimapia.org, Creative Commons License Attribution-ShareAlike (CC BY-SA), accessed on September 12th 2012).

Figure 4: EISCO's Company Town

(Map courtesy of wikimapia.org, Creative Commons License Attribution-ShareAlike (CC BY-SA), accessed on September 12th 2012).

Figure 5: Map Showing Agriculture Areas to the South of EISCO
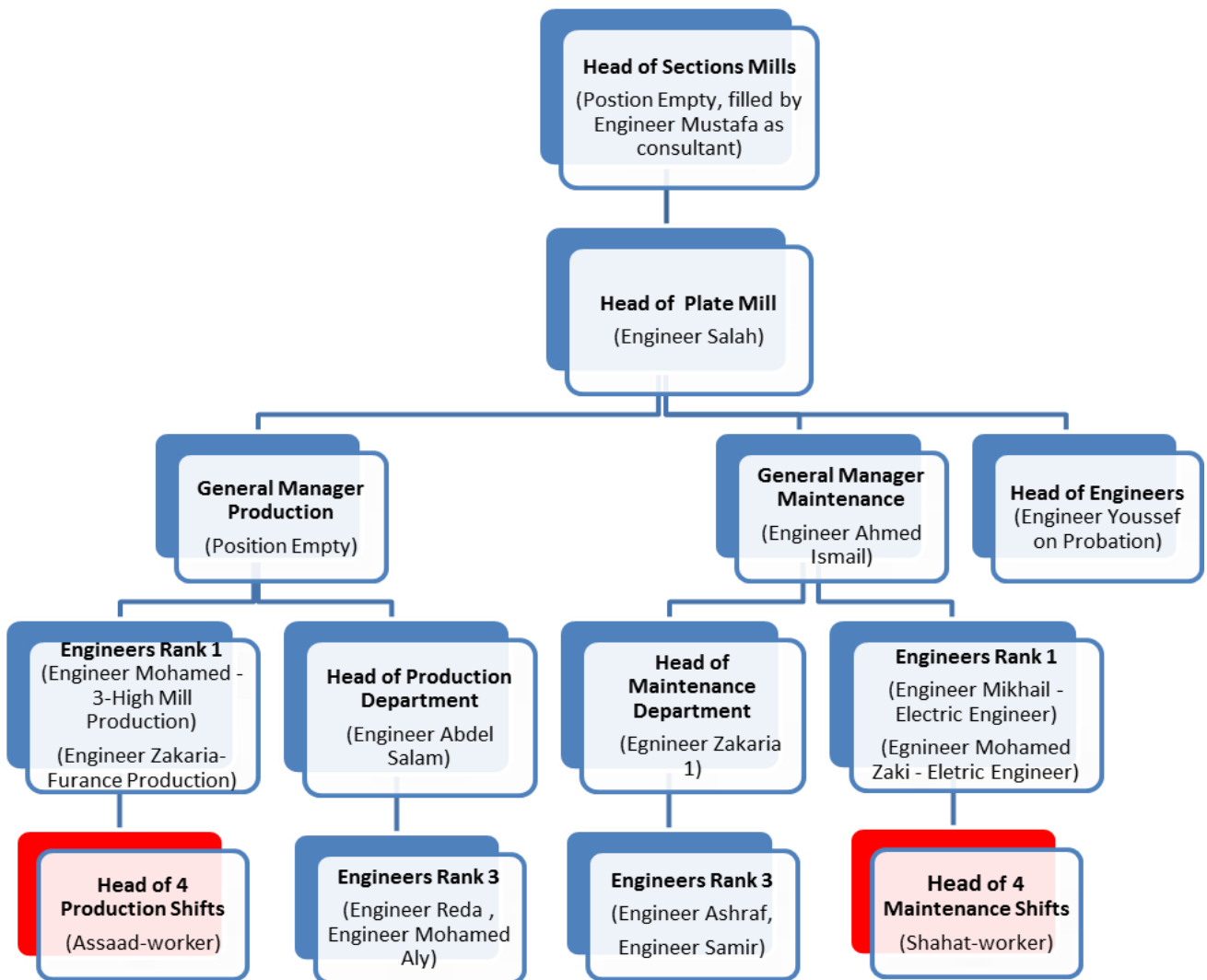(Map courtesy of Ahram Online)

Head of Sections Mills
(Postion Empty, filled by Engineer Mustafa as consultant)

Head of Plate Mill
(Engineer Salah)

General Manager Production
(Position Empty)

General Manager Maintenance
(Engineer Ahmed Ismail)

Head of Engineers
(Engineer Youssef on Probation)

Engineers Rank 1
(Engineer Mohamed - 3-High Mill Production)
(Engineer Zakaria-Furance Production)

Head of Production Department
(Engineer Abdel Salam)

Head of Maintenance Department
(Egineer Zakaria 1)

Engineers Rank 1
(Engineer Mikhail - Electric Engineer)
(Egnineer Mohamed Zaki - Eletric Engineer)

Head of 4 Production Shifts
(Assaad-worker)

Engineers Rank 3
(Engineer Reda , Engineer Mohamed Aly)

Engineers Rank 3
(Engineer Ashraf, Engineer Samir)

Head of 4 Maintenance Shifts
(Shahat-worker)

Figure 6: Management Hierarchy on the Shop-Floor

Figure 7: The 3-High Rolling Mill

Figure 8: Steel Slab Released From Re-heating Furnace

Figure 9: Slab Slides on Rollers towards 3-High Rolling Mill

Figure 10: Slab Arrives at 3-High Rolling Mill to be Turned to Sheet or Plate

Figure 11: Producing Steel Sheets

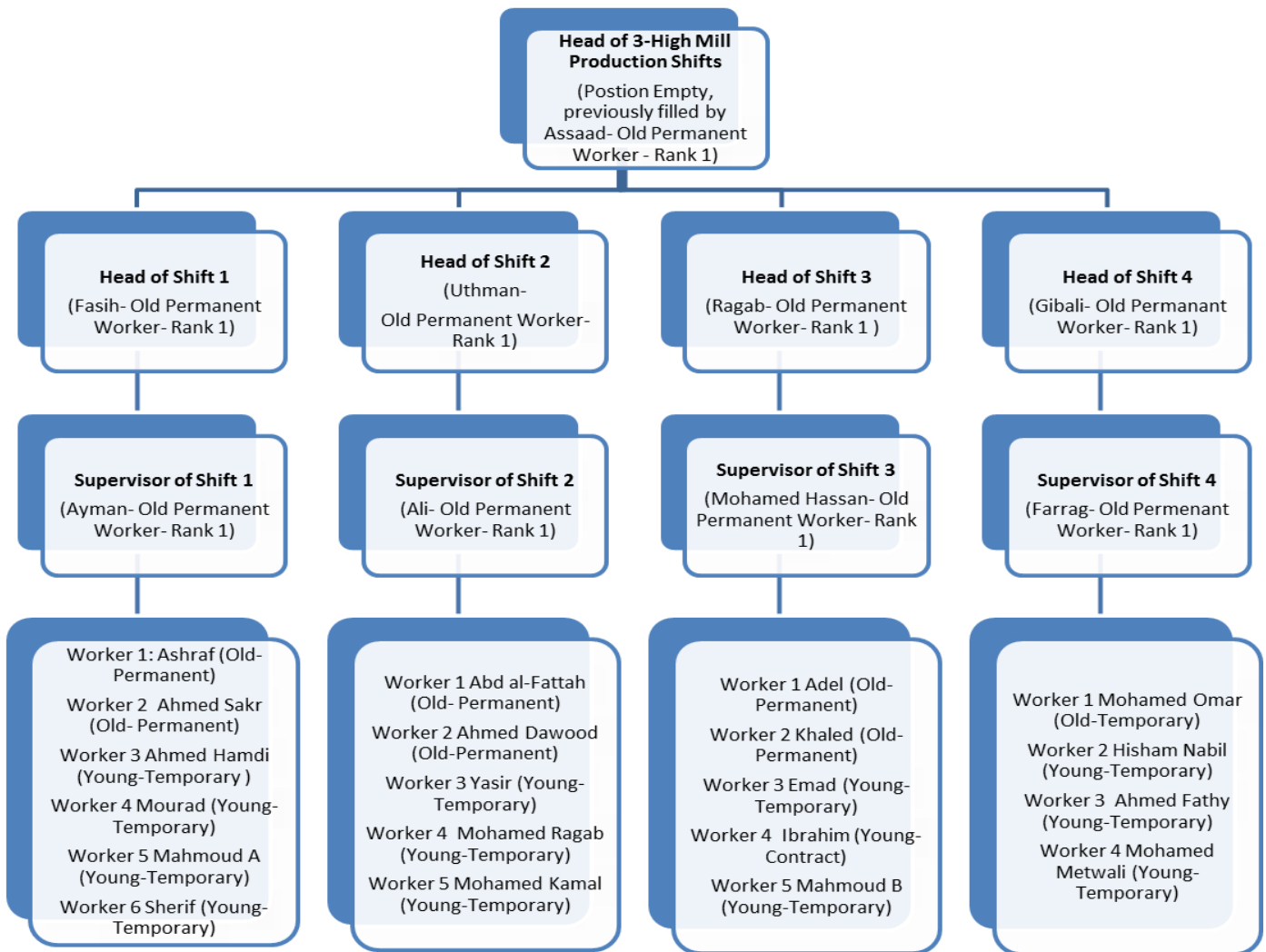**Figure 12: Final Product after Trimming**

Figure 13: Production Shifts at the 3-High Rolling Mill

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Figure 14: Palm Tree Chaff Waiting to be Used in Production

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Figure 15: Gasser, a Temporary Worker Prepares the Chaff

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Figure 16: Getting Ready to Throw Chaff on the Slab

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Figure 17: Using Chaff to Clear Oxides from the Slab

Figure 18: Using a Water Hose instead of a Hydro-Blasting Pump to Clear Oxides

Figure 19: Fadi Assists the Crane Operator with Crowbar to Attach the Sheaves

Year/Percentage of breakdown from total downtime	External Factors	Pre-planned Maintenance	Production Breakdown	Mechanical Breakdown	Electric Breakdown
2003-2004	9.1%	33.2%	4.4%	43.6%	9.7%
2005-2006	12.4%	43.9%	1%	32.6%	10.1%
2006-2007	10.5%	49.1%	1.1%	30.2%	9.1%
2007-2008	8%	44%	1%	37%	10%

Figure 20: Breakdowns at the Plate- and Sheet- Mill 2003-2008

(Numbers Courtsey of Eng. Ibrahim Akl)

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Figure 21: Brick Holds the Second Joystick Next to Control Room

Figure 22: EISCO's Company Town

Figure 23: The Central Square of the Company Town

Figure 24: A Standard House in the Old Steel City

Figure 25: Old Steel City Combines Old Houses and *Hadith al-Tashyyid* Buldings

Figure 26: A Standard House in The New Steel Housing

Figure 27: The New Steel Housing

Figure 28: *Bīyyt ʾAhali* Area

Figure 29: A Standard House in *Bīyyt ʾAhali* Area