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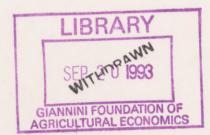
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The Labour Process Under Amoebic Capitalism: A Case Study of the Garment Industry in a South Indian Town

Revised and Conclusive (August 93)

by

Pamela Cawthorne

DPP Working Paper No 23

Development Policy and Practice Research Group

Faculty of Technology

The Open University

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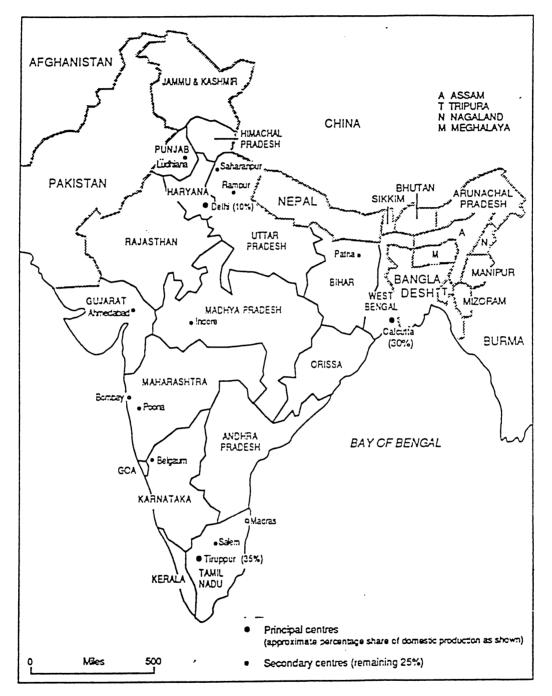
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Table 1 Distribution of Factory Industry in Tiruppur, 1986

Figure 1: Centres of concentration in the cotton knitwear industry



Source: Rao (1985) Status of Indian Hosiery Industry

The Labour Process Under Amoebic Capitalism:

A Case Study of the Garment Industry in a South Indian Town¹.

by Pam Cawthorne

1 Introduction

The cotton knitwear industry in India is characterised by its sectoral divisions (according to the type of raw material used to produce the fabric: cotton, wool and synthetics); by its spatial concentration in particular localities in India (see Figure 1) and by the reservation of 'hosiery' for production in the small-scale sector. This industry formed the basis for empirical research in the town of Tiruppur, Tamil Nadu as a vehicle to investigate processes of economic and social change under conditions of economic growth and accumulation. This has been fuelled, primarily, by opportunities to gain access to export markets during the 1980s.

I called the *form* by which the larger firms in this industry are accumulating amoebic capitalism. By this I mean, simply, that as these firms expand, they typically split into separate units of production. Figure 2 illustrates which processes constitute the cotton knitting industry in Tiruppur. Perhaps this form of amoebic capitalist expansion and accumulation can be thought of as one possible variant of uneven development.

¹ This paper is based on doctoral research (Cawthorne, 1990). It was first presented as a paper at a workshop on 'Development and change in the labour process in the Third World and advanced capitalist countries' held at the Institute of Social studies, The Hague 14-15 April, 1989.

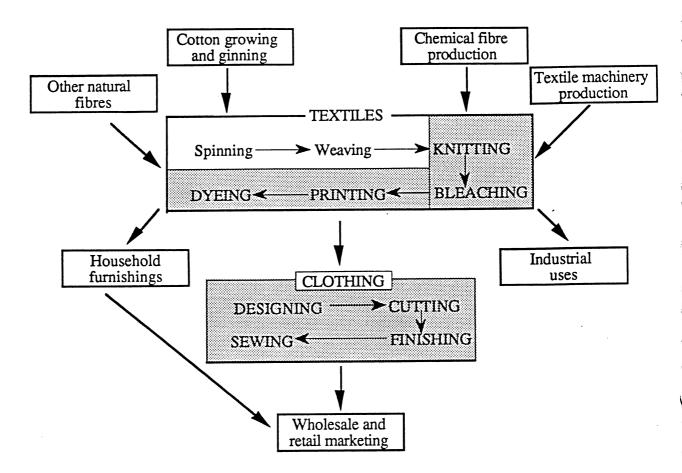


Figure 2 The place of cotton knitting and cotton knittwear in the textile industry as a whole

My analysis concentrated on factors which have been strategic to a process of accumulation within the firms I surveyed and across the industry as a whole. To look at the process of accumulation was important because of the different assumptions made about possibilities of development in small-scale industrial sectors. Therefore, the factors I thought important to pursue an analysis of accumulation in the cotton industry included the following:

- the relatively small capital investment necessary to begin production;
- access to credit from State banks as well as from more informal sources;
- the kinds of technolologies in use;
- the nature of the labour force in an unregulated sector of industry and
- the manner in which jobworking enables small firms to produce a marketable commodity and large firms to maintain productivity without high concomitant capital expenditure.

In this paper, however, I concentrate on the labour process implications of amoebic capitalism for owners and workers in the industry in Tiruppur.

The labour process¹, as a concept, draws attention to two different areas. Firstly, a discussion which centres on what is happening to workers as economic change takes place: how this affects what workers do and what they themselves do about it. Secondly, what managers or owners do: what kinds of strategy they use to run their businesses. It became particularly obvious that amoebic capitalism benefits owners in this industry. In section III, I look in some detail at the manner in which jobworking as a form of organizing production does benefit owners while in section IV I look at the situation of workers in the industry. It became equally obvious that workers do not benefit from these forms of organization as is apparent from the description of the conditions of work for labour (for example, the length of the working day, and lowwages), their jobs, skills and the hierarchies which exist in the divisions of labour

I begin, in section II, with a general description of the Tiruppur knitting industry.

2 Tiruppur and the knitting industry

Tiruppur is, by whatever criteria, on first acquaintance quite unremarkable. It is a dusty, bustling little town, lying in a hot, flat plain, with neither the hills nor forests to relieve it that make Coimbatore (the second largest town in the state of Tamil Nadu) seem less oppressive. It lies almost due East from Coimbatore (approximately 50 kms. away), on the main railway line to Madras, and is well connected by road to Coimbatore and nearby market towns such as Avanashi and Erode. The latter is also a thriving small town (an outlet for a considerable quantity of knitted garments made by small producers in Tiruppur, many of whom have found ways of smuggling goods to Erode market; thus avoiding the payment of sales taxes). Erode also has a large and expanding powerloom weaving sector and much of the woven cloth used in some of the knitted garments in Tiruppur have been made on powerlooms in Erode.

In many ways, Tiruppur seems to straddle two centuries. Arriving there is like stepping back into the nineteenth century² while remaining in the late twentieth.

¹ There is an extensive literature about the labour process beginning with Braverman's pathbreaking, but fundamentalist study in 1974. This includes: Palloix, 1976; Brighton Labour Process Group, 1977; Friedman, 1977, 1985; Coombs, 1978; Burawoy, 1978; Cutler, 1978; Taylor, 1979; Elgar, 1979; Zimbalist, 1979; Littler, 1978, 1982a, 1982b; Stark, 1980; Lee, 1981; Wood, 1983).

² I have deliberately avoided making reference to a 'materially poorer' or 'underdeveloped' society. England simply conceals from obvious view much of its currently existing less savoury industrial working conditions, and highly exploitative social relations. But they exist particularly poorly paid, piece-rated women workers. Visit Leicester or the East End of London garment 'sweatshops', for instance (see Mitter, 1986). Tiruppur is a monument not to underdevelopment, but to uneven development.

Workshops with petty commodity producers and their child 'helpers' jostle factories employing thousands of people, for the town as a whole is a hive of 'textile-related' industrial activity. Handloom weavers, producing cloth using techniques known for a thousand years or more coexist with ginning and spinning mills using highly sophisticated technologies and employing a 1000 or more people in each factory. The powerloom sector uses machines a hundred years old in design. They clack loudly and dangerously back and forth, jammed together in rows fifty or more to a room. Skinny 'machine tenders' (for that is all they are) re-link broken yarn and check the machines. They move deftly between the machines with just inches to spare.

Knitting workshops, by contrast, contain rooms full of pleasantly quiet revolving knitting machines. These are based on more recent design, but are still basically unchanged for 40 years. Then there are making up factories with rows of (male) sewing machinists; tiny workshops which contain a couple of sewing machines and all sizes of workshop in between. There are bleaching and dyeing works which ring the town on its periphery, recently joined by screen printers in well-laid-out factories. Sequins are sewn onto T shirts in women's homes or other kinds of decorative work such as embroidery is performed on a classic 'putting out' basis. But I also found workshops with groups of women unravelling scraps of material back to yarn for cleaning machinery. This was the only example I found of women in business for themselves.

Older women tended to work in the mill sector¹ ("they are still fast, and they don't have children anymore. Also we can pay them less", Manager Somanur Mill, Coimbatore). Everywhere, too, child 'helpers' illegally employed in large numbers, accross all sizes of firms in the knitting industry and in the powerloom workshops. Tiruppur has the feel of a 'boom' town, and that boom has undeniably come about from the recent and rapid expansion in the demand for garments made of cotton knitted fabric. There is currently a fashion-boom in Western Europe and North America for all kinds of cotton-knitted clothes.

Table 1 shows the distribution of industry using Factories Inspectorate lists. 56% of all factories are in the knitting industry, but taking all the textile-related sectors together, 84% of 'factory' industry in Tiruppur is textile-related. Small-scale industrial units registrations (with the Directorate of Industries and Commerce) reveal

¹ See table 1

an even more highly spatially concentrated distribution. Of the total of small-scale industrial unit registrations¹ for textiles and textile products (two-digit categories 23 and 26) over 80% of the units are in Tiruppur.

Table 1: distribution of factory industry in Tiruppur, 1986

3

2

6

2

1

224

1

2

1

2

152

Code

28

30

33

34

40

97

Industry

Printing

Metal rolling

Bus Transport

Polythene

Engineering

Electricity

TOTALS

Cox	masay	Size of Factories by employment category						Em- plmt	
		20-49	50-99	100- 199	200- 499	500- 1000	1000+		
20/2	Rice & Oil	22	25	1				48	1790
22	Tobacco	1						1	20
23	Ginning	4	10	17	23			55	6860
23	Spinning	8	10	7	5		7	37	9360
23	Dyeing/ Bleaching	10	9	3				22	950
23	Powerloom	2						2	40
23	Labels,cone- rewinding sizing	10	3					13	350
26	Knitting	151	89	9	3	2		254	9970
27	Timber	2					•	2	40

No. of Registered Factories

Total

3

2

7

4

1

3

454

60

40

170

140

50

120

29960

Total

Factories Inspectorate lists for Palladam taluk, Tiruppur Municipality, 1986 Source:

37

31

3

7

Although, as table 1 shows, the ginning and spinning mills employ the largest numbers of people per workplace, (and do not employ children below the legal minimum age of 14) the production of cotton knitted cloth, and the increasingly diversified kinds of garment made from it, dominate the town economically. Moreover, in addition to supplying local and all-India markets with 'banians' (the Indian word for vests and T shirts) and underpants, well-known European retailers (C&A Modes and the French Connection, to name the two I encountered directly²) and large Indian merchant capitalists, with numerous agents, were placing orders in

¹ Directorate of Industries and Commerce (1980), 'Directory of Tamil Nadu Small-Scale Industrial Units for Coimbatore' pp.8-20 and 21-66

² I was told that there were at least 20 different foreign buyers in Tiruppur at the time of fieldwork in 1986/87.

Tiruppur and have opened up access to export markets for a diverse range of outerwear garments made from cotton-knitted fabric.

As in any urban area in India, this dense industrial activity is interwoven with numerous other kinds of petty (often 'service-type') economic activity: teashops, godowns, barbers, repair shops of various kinds (cycles, sewing machines), flour grinding, metal-working workshops, general stores, three-wheeler drivers and so on. Much of this activity profits from the growth of the knitting industry. There are also direct backward and forward industrial-linkage spinoffs both locally and further afield. This includes thread suppliers (including the large multi-national, Madura Coates, formed by a merger with JNP Coates UK, Madura Mills and Harvey (UK) Ltd.); small, medium and large firms (both in Tiruppur and other nearby towns) supplying elastic, buttons, clothing labels, packing materials - primarily cardboard and polythene; chemicals and dyes (large Indian companies in Bombay and Delhi). The circular knitting machines are nearly all supplied by firms in the North (in or near Ludhiana), although there is one machine supplier in Tiruppur and another just setting up in Coimbatore in 1987. Sewing machinery is all Japanese made, but second-hand machinery is easily obtainable.

Tiruppur is a higgledy-piggledy conglomeration of new and old, bustle and stasis, peeling dereliction and glossy bank facades, filthy tent encampments of 'gipsies', the 'cheris' and modern, brightly painted 'breeze-block' constructions for industrial use and private housing; two well-laid out industrial estates (one built by the Small Industries Development Corporation, SIDCO) and the other (the LRG estate), privately owned and set up as a Trust, and tumbledown buildings in the 'old' part of the town. The railway and the river Noyyal (a filthy trickle of dye-stained water, often, and implausibly, given as one of the main reasons for the location of the knitting industry) neatly dissect the town and separate the new (north of the railway) from the old. In many ways, Tiruppur combines sights, sounds and smells typical in any urban area all over India. India writes its contradictions large and plainly for all to see.

"Tiruppu" is a Tamil word meaning spinning, and Tiruppur has long been a centre for handloom weaving as well as the selling of raw cotton at its exchange. The mill sector of the textile industry has both a colonial and post-Independence history of successful if uneven economic development in Tamil Nadu (Sreenivasan, 1984;

¹ Separate housing areas for people belonging to 'untouchable' castes.

Murphy, 1981; Baker, 1984) and also, like many other States in India, (see Mazumdar, 1984) has witnessed a recent and rapid growth of a 'powerloom' weaving sector. Mills in the South, however, are predominantly spinning mills and the industry is very heavily concentrated in and around Coimbatore (Mackie, 1981). These mills produce varied kinds of yarn, including 'hosiery yarn' cones, used for the manufacture of cotton-knitted garments (T shirts, or 'banians', as they are called in India).

Knitting is a much more recently developed industry than weaving and spinning and there is no historical equivalent to the European framework knitting industry in India. Primarily, this was related to the lack of a domestic market for knitted garments until very recently. Even woollen garments were woven, and it is a relatively recent development for there to be widespread use of (cotton) knitted underwear.

The first knitting machine was brought to Tiruppur in 1940. Both capital and labour constraints in the knitting industry are minimal (the reasons for this are explained in the sections below), and many of the workers in the industry are 'first generation' industrial labour. Capital has been mostly generated (the result of rapid accumulation from within the industry) from within the area (there was only one instance in 1986/87 of a large, privately owned *company*, (Crystal Knitters) set up by a mill-owning group based in Coimbatore and Tiruppur itself) and State Banks² providing relatively easy access to credit have assisted the expansionary process.

The two other main centres for cotton knitted garments, Calcutta and Delhi, are older centres, with knitting machines in use in Calcutta at the turn of the century. More recently, Ludhiana in the Punjab (better known for its production of wool garments and textile machinery) has begun to produce cotton knitted garments. This was not difficult, since the vast majority of all the circular knitting machinery produced in India (by the Punjab Machinery Co.) is manufactured there. Capitalist owners in Tiruppur were bitter about this (competition in, and potential loss of, north Indian markets which Ludhiana's development threaten) and blamed it on strike action, particularly in 1984. But smaller centres all over India are developing this industry in

¹ The South Indian Millowners Association (SIMA) keep detailed statistical records of yarn production in the privately owned mill sector as does the National Textile Corporation (NTC) for 'the public-sector mills. The point to remember, however, is that the mill sector is responsible for practically all spun yarn, apart from small quantities of hand-spun yarn used for the production of 'khadi', or woven cloth made from hand-spun yarn.

² As part of promotional State policies aimed at 'small-scale' industrial sectors

response to both the ease of entry and increasing demand, both in the home markets and abroad, for these kinds of garments.

Jobworking from the owners' perspective: fragmentation of the workforce and indirect control.

One of the most prominant characteristics of the knitting industry is a split production process and jobworking as a facilitating form of organization. Tiruppur entrepreneurs use the term jobworking to describe interactive networks between and also within firms. These networks connect specialist firms; those in fabrication, finishing and making up. But jobwork is also used in some cases to describe the divisions of labour which exist within firms. In the latter case, an owner often employs a jobwork contractor for each unit. This person is a kind of production manager who is also responsible for employing labour for a particular job. This organizational system within the firm then parallels the process divisions found in the industry as a whole and seems almost identical to older forms of inside contracting (Lazonick, 1979; Samuel, 1977; Mead 1984).

Jobworking, under conditions of expansion, had given rise to the following situation by the end of 1986:

- a) a small number of large (in a very few cases vertically integrated) firms producing garments increasingly and in many cases now, exclusively, for export markets;
- b) a much larger number of medium sized firms in the main making garments for sale in out-of-State Indian markets but increasingly combining production of garments for the Indian market with garments for the export market. In the latter case, a number of these medium-sized firms make such garments on a job-working contract for larger firms who obtain the orders from foreign buyers;
- c) a yet larger, but unknown, number of very small petty commodity producers¹ making garments sold in small localised markets, for the most part sold to agents acting on behalf of small wholesalers and retailers.

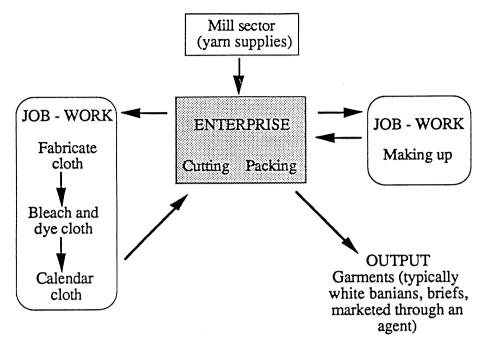
¹ Petty commodity production has tended to be characterised as a transitional mode between feudal and other non-capitalist (peasant) modes and the capitalist mode of production. (Where the capital/wage relation is not clear-cut). In the former the cyclical nature of the productive forces are characteristic compared to the revolutionary development of the latter: expanded reproduction of capital. Harriss (1982) distinguishes between a traditional petty commodity producer and a 'modern' petty commodity producer in his study of small-scale production in nearby Coimbatore, and in this sense, the petty producers in Tiruppur are clearly 'modern' in that the industrial activity is recent. But the question of transition is altogether more problematic. For an iconoclastic discussion of petty

Now it is important to note that none of this would have been apparent from any of the secondary sources which were consulted. Designation of the sector as small-scale means that firms which are expanding simply register spatially separate further units of production (despite common ownership), thus giving the somewhat distorted impression of an industry composed solely of small and medium sized individual firms.

Jobworking clearly acts as one mechanism to facilitate accumulation. On one hand, it enables smaller firms to specialize in different parts of the production process yet still be in a position to sell a finished commodity. On the other, it means that the larger firms do not need to vertically integrate production processes in order to expand production and can keep capital investments to a minimum. In other words, capital accumulation is taking place, is becoming more concentrated, *but without production processes being centralized*.

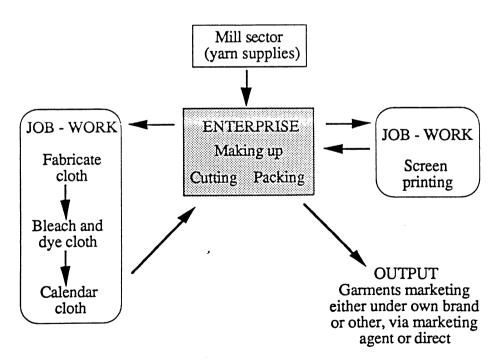
Figures 3, 4 and 5 show how individual capitalists - petty, medium sized and large - can use jobworking to exert control over crucial stages of the production process. All three variations in the type of firm are instances of exerting technical control, because buying yarn (hence ensuring its quality) is crucial. Secondly, controlling the cutting of garments allows wastage of cloth to be minimised.

Figure 3 Job-working and the cutting firm

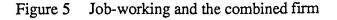


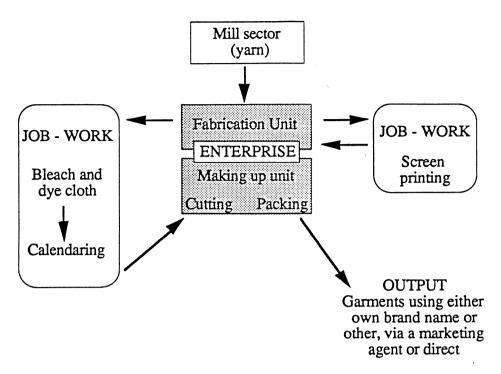
NB: such an enterrpise requires working capital only (to buy raw materials) and access to (rented) premises with a cutting table; the latter an investment of approximately Rs500

Figure 4 Job-working and the making-up firm



NB: such an enterprise might own but more likely to rent premises and would require a minimum capital investment of approximately Rs 4,000 total. This would include one 'power table' with four seats (1 over-lock, 1 chain-lock, 1 label stiching machine and 1 rib cutting machine - a maximum approximate investment of Rs 2,000 buying second hand-machines). Plus, one hydraulic/mechanical press - approximately Rs 1,000 and one cutting table and irons - approximately Rs 1,000.





NB: such an enterprise would require a minimum fixed capital investment of approximately Rs 1 lakh (representing 5 second-hand knitting machines costing approximately Rs 20,000 each, five machines being about the smallest economically viable number covering various diameters); and a further Rs 4,000-10,000 for a power table, hydraulic press and cutting table.

Jobworking can thus be conceptualised both as: (1) more or less vertical integration of the production process under single ownership and concomitantly, more or less direct control of the labour force but also (2) as a net-working system which benefits small owners. Figure 3 illustrates the most extensive case of jobwork as net-working, figure 4 more direct control of the labour force, but still limited vertical integration and figure 5 more direct control of the labour force combined with more vertical integration. Yet even in the last case, where a firm combines both making up and fabrication (and in a very few cases bleaching and dyeing also) this extended control may be offset by the use of inside-contract systems.

That is, many of the owners of the larger firms in Tiruppur were seeking to evade direct control of their workforces in two ways: (1) within their own firms and (2) through the use of job-working with other firms specializing in other parts of the production process.

"Do you mean indirect employment? Yes, I create lots of other jobs because I am getting the orders. That's how the jobwork system works here. I don't want to employ any more than 100 workers myself, and I

haven't expanded beyond this point for the last ten years. It's because of all the labour disputes. I'm buying land in Coimbatore...so if things get very bad here I can move my business". (Owner of Leela, interview transcript, November, 1986).

Thus, many of the same large firms set up individual units of production and place a jobworking contractor in charge of production and the hiring of labour. The owner/manager of the parent firm then concentrates his (since they are all, without exception, male) attention on marketing and sales. Balasubramaniam owns one of the largest firms producing garments for the Indian domestic markets. It now contains seven separate production units, three fabrication units and four making up units. His brother owns a bleaching and dyeing factory. "This is good, it means that I didn't have to worry about investing in these areas myself - it's an expensive operation if you have to buy modern dyeing equipment". (Balasubramaniam, owner Jay Jay).

"I used to run it all like one factory - employ all the labour. But since just before the strike [1984] I have system. I have a general manager whose main task is to deal with all the distribution and co-ordination aspects of work between and with all the separate units. He buys the yarn* and gives it out to the fabricating units. The rolls of cloth are returned and stored here (the SIDCO estate premises) and my offices are here. I do all the marketing now and get the orders [from Agents] and I make all the necessary contacts. A list of requirements is drawn up from the order obtained and passed to my managers (he has two assistants). Now, in each of the units is a subcontractor. His main job is to take care of hiring labour required for a particular job and to organize production for that job. He's responsible for quality and he will lose part of his money if there are defects. This sytem works well. The sub-contractors were some of my best and most long-standing workers. I call them 'managers' now and they are very happy...I have a leasing system for the machinery. The sub-contractor leases a number of machines* from me and then subleases six machines to each worker".1 *Both working capital and machinery are provided/owned by Balasubrananiam

As a firm expands and accumulates, various factors interact together and affect the form the firm takes. The two most significant factors which emerged from fieldwork research were: how far to increase capital investment (expand capacity); and secondly,

¹ This leasing system, however, was not usual. In all other cases where similar separated units of production (with sub-contractors in charge) existed, raw materials and machinery simply belonged to the 'parent' firms.

as the quotations above show, how far to take on the increased responsibility for an expanded labour force (and whether to do that directly or employ someone else as an inside contractor). In both cases, jobworking allows capital investment and direct involvement with labour to be minimised.

There was only one case in the sample group of firms of a large firm intending to integrate as many of the production processes as was consistent with his own prospects of accumulation.

"I want to be like the spinning mills here. That is my ambition. Then I will have all the stages as one operation - calendaring, bleaching, dyeing etc. This way, I have much better managerial control than otherwise. I don't believe in sub-contracting work....Labour problems are there. It doesn't matter whether you try to keep your production units small or not, whether you split them up or not. With a large factory you know exactly what is going on." (Kandaswamy, Okey Textiles).

All other large firms in the sample group (a total of eight) had adopted strategies which were more or less explicitly about evading the responsibilities for large workforces. They all had three or more spatially separate units of production (two had nine and ten separate units). Here is the owner of Leela, currently one of the largest of the knitting firms, and one of the first to make garments for the export markets. His response is typical of many others. When asked if a rapid expansion in demand had led to any pressure on his own capacity he said that using the jobwork system enabled him to deal with all the extra work.

"When necessary, I will get the stitching done by other firms but we will always check, iron and pack the garments to control the quality here. I have made fairly permanent arrangements with 12 other firms who always carry out work for me. But none of them are solely dependent on me.¹ These other firms are mostly much smaller making up firms and sometimes, for some jobs, I supply machinery plus a supervisor employed by me to control the overall production. These people need to be watched, because they don't have the experience. Yes, I use other people's [that is the workers in these smaller firms] labour. This way, I

¹ He nevertheless sees himself as an indirect employer of labour in those firms. (His own labour force totals 115 of which the majority are men (approximately 80) Of these, 15 are office staff paid a monthly salary. All others are on piece rates, with the exception of those working in the dyeing section.

can avoid the problem of labour control here at my place". (My emphasis.)

Gangadharan was explicit in saying he wanted to avoid employing a labour force much larger than approximately 100 and therefore had not expanded his own enterprise much beyond this point largely due to the various labour disputes of the last 10 years. Part of the reason for acquiring land in Coimbatore was his intention to move his business there if "things got very bad in Tiruppur". He has no intention of altering his present arrangements and sees his future prospects intimately tied up with continued access to export markets.

Where the firms are smaller - those making up, for example, shown in figure 4 - their control over the labour process is considerably less than for the larger firms which combine cloth fabrication with making up. (In a few cases, dyeing and bleaching as well). But such firms appear (from the sample group) to be most concerned with avoiding the extra capital cost of acquiring knitting machinery needed to fabricate cloth rather than avoiding employing larger numbers of workers. However, there was one case of such a small making up firm with an inside contractor although he also worked as a machinist himself. But this firm had only recently started and was something of an exception to other similar sized firms in other respects than this.

4 Labour in the knitting industry in Tiruppur.

The concept of the labour process also prompts questions about the way in which workers (sellers of labour power) are organized in production and things that capitalists (buyers of labour power and owners of capital equipment and plant) do to achieve this organization. The fact that workers in this industry have managed, to a limited extent, to transcend the fragmenting effects of these forms of organizing production is testimony both to the courage and determination of workers and union representatives (reputedly an atypically honourable group of people in Tiruppur). Less dramatically, the extent to which this industry is both spatially concentrated in the town together with the rapidity of its expansion also makes for consciousness raising. These factors appear to have partially overcome the disadvantages arising from the inbuilt fragmentation of the workforce through amoebic capitalism. Certainly it was highly unusual in India for piece-rated workers (as these are) to have wrung concessions on the payment of dearness allowances (a kind of fringe benefit payment calculated to take account of the rate of inflation).

Another important point to note is that in Tiruppur conceptual boundaries, normally taken for granted, tend to blur. Many workers think of themselves as potential petty

capitalists, or have actually become so. Such owners are classic petty commodity producers exploiting their own labour power. Such people have combined a range of (often first generation acquired) industrial skills, in many cases gained from experience across divisions of labour such as cutting, machining and ironing in making up.

At the same time, there are also a class of owners who can be clearly identified as industrial capitalists (as opposed to merchants or financiers). These people have a very different class background from petty owners and are for the most part well educated.

a) Jobs and skills

As figure 2 above shows, the main process divisions in the knitting industry are between: cloth fabrication - the production of tubular lengths of knitted fabric made with cotton hosiery yarn of different counts¹; finishing processes - bleaching and dyeing and calendaring, or steam-heat pressing; and finally, making-up the garments. The division of labour in these different areas is most complex in the making-up workshops and factories and figure 6 indicates the main type of job associated with these different parts of the production process.

¹ The higher the yarn count, the finer the fabric produced. The most common counts are 20s and 40s. The different kinds of fabric are: single jersey, double jersey, rib knitted; interlock and a variety of patterned fabrics which is known in the West as Aertex (called eyelet in Tiruppur).

Figure 6 The production process and the division of labour in the cotton knitting industry

Inputs	Production Processes/Jobs	Capital/Labour Ratios		
YARN	CLOTH FABRICATION Knitting machine attendants - Helpers	CAPITAL INTENSIVE		
	BLEACHING AND DYEING Machine attendants (dyers) - Helpers Bleachers - Helpers	CAPITAL INTENSIVE		
	CALENDARING Machine attendants - Helpers	CAPITAL INTENSIVE		
ELASTIC THREAD BUTTONS LABLES	MAKING UP CUTTING Cutters - Helpers STITCHING Machinists - Helpers - Checkers BUTTON HOLING, BUTTONS, LABELS	LABOUR INTENSIVE		
	Button holer - Button stitcher - labeller IRONING Ironing 'masters' - Folding man			
PACKAGING MATERIALS	PACKING Packers	LABOUR INTENSIVE		
OUTPUT	Underwear and outwear cotton knitted garments			

But what constitutes skilled work? Firstly, what are the objective sets of conditions necessary for the worker to be able to perform the job adequately or well? This is clearly related to the amount of time it takes to learn how to perform the task, but also what kind of skills the worker may need before s/he can even start; secondly how the tasks which make up that job compare with other jobs in the same workplace or within the industry but thirdly who has the power to make the decisions (and why) about what shall be described or thought of as 'skilled' or 'unskilled'. Skill, in other words, is socially constructed as well as objectively determined¹. Much of the time the underlying issue for both workers and owners is the rate paid for the job.

¹ Littler, 1982, calls this a weak version of a social construction hypothesis, by which he means that there is always a way in which seemingly objectively determined characteristics (of a job) conceal, as it were, the way in which decisions about those characteristics and

Knitting machine attendants (in charge of the circular knitting machines and responsible for the production of knitted fabric), cutters, and machinists¹ in the making up units are all regarded as skilled jobs and the rates of pay are relatively high. All these workers are assisted by (unskilled) helpers who are, for the most part, children or, in some cases, adolescent 'apprentice' boys. Boys were sometimes described as 'apprentices'; girls were not. All these jobs are performed, in the main, by men². The overall gender division of labour (in cutting, making up and fabrication firms) based on the employment figures of firms in my own sample were: 51% men; 29% women and 18% children (boys and girls below the age of 14)³. There are women machinists, and owners claimed there was no difference in the amount earned by men and women performing the same jobs. However, the wage rates of a group of 45 workers (collected during fieldwork) show that women machinists earned between Rs.200 and 500 per month, with the average Rs. 250. Men's monthly wages as machinists ranged from Rs.500-1000, and averaged Rs. 650.

<u>Ironmasters</u> are also regarded as skilled workers, although they are not paid as much as the categories of workers above. While <u>pressers</u> and <u>packers</u> are regarded as semiskilled.

<u>Trimmers</u> and <u>checkers</u>, are regarded as semi-skilled but there are different rates of pay depending on whether it is a woman or a child performing the job, for these jobs are nearly all performed by women and children.

labels such as 'skilled' or 'semi-skilled' come into existence: "nearly all skilled jobs have some objective skill content but...it is strategic position within the production process combined with collective organization which gains the occupation a skill label..." p.9

¹ There are three main kinds of stitching or sewing machine: overlock, chainlock and flatlock. In addition there are separate machines for button holing (sometimes subcontracted out to workshops) sewing on buttons and labels. There are also hydraulic presses for flattening the garments before packing.

² A reversal of the gender division of labour in the garment industry in the UK. However, this represents in India a closer link with an artisanal past when tailors (what would be called 'bespoke' tailoring) were always men and small tailor's shops abound in all urban areas.

³ The gender division of labour for non-household industry in Tiruppur according to census figures in 1971 and 1981 were respectively: 83% men and 16.5% women and 81% men and 18% women, only a slight increase over what is in effect a fifteen year period.

In terms of job content and the overall divisions of labour little has changed for the last 35 years. Detailed job descriptions exist in the Madras Productivity Report¹ and are broadly accepted by the Unions. Disputes have not been over demands for job reclassification and since the industry as a whole is so unregulated potential areas of conflict such as promotion and upgrading, production standards and manning levels or the transfer of personnel are unheard of. Cutting masters and cutters tie, bundle and hand over the cut pieces to the tailoring section. Machinists clean and look after their machines and helpers (always children) arrange machined sections of garments for the different machine operations. The amounts paid depend upon the skill category of the job and the age of the person performing it. In this industry, women workers tend to be young adolescents through to early twenties. This probably mostly accounts for the lower wages recorded for women workers in the sample group.

b) Hierarchies in the division of labour

Hierarchies range in the knitting industry from complex ranking of jobs and personnel in the large, usually composite ie: fabrication and making up, knitting firms (for the most part, across anywhere up to 12 separate units of production) to non-existent in the very small single owner workshops: one man and a boy helper. As soon as many more than 5 or 6 workers are employed there is usually at least one clerical or office worker. So the split between manual and non-manual work starts to emerge fairly quickly. In terms of rates and type of pay, this is important. Of the 25 firms in the sample, two small workshops employed one child helper. But most employed between 20 and 100 workers. In these cases, the main *status* division was between office staff and workers in the factory. The former are usually paid monthly salaries, and in some case benefits such as ESI while the latter are piece-rated and in many cases temporarily employed from job to job.² The salaries of office workers would, however, often be quite a lot less than, say, the ablest machinists.

Within the manual work category, hierarchies are largely determined by the jobs being performed. Those jobs seen (and rewarded) as the most skilled are the machinists (in the making up units) and the knitting machine attendants (in the fabrication units).

¹ Report on workload studies at banian factories in Tiruppur' Madras Productivity Council, 1972.

² The only exception was workers in the dyeing plants who were paid monthly salaries. Their jobs were considered highly skilled and also interesting because these workers were using some of the most sophisticated machinery in the industry.

Working in the bleaching and dyeing factories is different again. Workers in dyeing are regarded as highly skilled and paid accordingly - in some cases as high as Rs.1500 per month (equivalent to the monthly salary paid to a woman designer at Poppies (one of the very few of the larger firms who were attempting to make their own designs rather than follow instructions)). However the age (and therefore the extent of a particular worker's experience) affects the amounts paid.

In many of the making up units with more than approximately 30 workers, there is also frequently a foreman or supervisor. In some cases, this job was not separated from the production line, and he would also be working as a machinist like the others. However, in other cases - particularly in the larger firms which operated an inside contract system, the 'contractor' becomes much more of a production manager. Such people are given a residual payment built into the rate for a particular job. Many workers with (both) these kinds of experience have the ambition to start their own business and in one interview the owner said with some irritation:

"It keeps happening. I give someone a responsibility and then they want to go off and set up their own place. This has happened twice" (Loganathan, Gentex¹).

Only two of the largest firms in the sample had anything approaching what could be described as a strata of middle management. In both cases, this was still combined with the same splitting of the firm into separate units of production (in one case, ten separately registered units, all with different names). But in one case the different central departments were run by four brothers who were respectively described as Financial Controller, Marketing and Administration Manager, Production Manager and General Manager: a classic family business since the father had established this firm after the second world war.

Therefore, two main scenarios emerge. The first is where an owner (or several owners in partnership) perform all managerial functions within their firm, including control of production (and all major decisions connected with production); marketing

¹ Gentex comprised six production units, all registered separately with the DIC in Coimbatore, but none under the Factories Inspectorate despite a (probably understated) total of more than 165 employees. Loganathan (the owner) also owned a making up unit in a village (Pulliampatti), about 30 kms. from Tiruppur, which only employed women and children (60 women and 40 children) which he set up during the strike in 1984. "It is a good way to get labour even cheaper, because women workers are cheaper than men and they want work in the villages". The supervisor/contractor of this unit was one of the people who left to set up his own business.

as well as the hiring and firing labour. Such firms will also have a small clerical staff but may well buy in help with accountancy. Much depends upon the size of the firm.

The second main scenario is additional status tiers within the firm. This may take the form of intermediaries controlling both production and labour (but still with little or no overall autonomy). Such people are variously described as 'managers', 'contractors' 'jobworking contractors'. But their functional position is the same. However, there were many instances of extended family involvement in firms. Where this is so, power structures alter and there may be a number of ostensibly equal owner/managers. It soon became clear while conducting interviews that nevertheless some one person in a partnership situation would be regarded as *primus inter pares*. In two of the very large firms, (Poppies and Yuvraj) a perceptible group of middle managers'- in addition to contractors in charge of individual units of production - also exists. Such managerial strategy as exists in respect of labour control is highly variable depending in many cases, primarily, on the personalities of the entrepreneurs involved; (possibly, more or less authoritarian).

c) Characteristics of the labour force

The most startling characteristic for a foreign researcher was the existence of so many child workers. Estimates varied from 15%-25% of the workforce. My own employment figures (which showed 18% of workers in the sample group of firms were children) suggest the lower estimate might be more accurate. But that is still a large number of illegally employed workers (the legal minimum age is 14). Most children tend to be 8 or 9 upwards (the youngest child I found was 7), and of the six children that were interviewed all had spent some time in school. However, compared to the horrendous situation in the nearby matchworks industry in Sivakasi (see Kothari, 1983) working conditions for children (indeed for everybody) were better, and the children, on the whole, somewhat older. Although there is Minimum Wages Legislation based upon recognizably welfarist economic conceptions of the man as the main or sole breadwinner, most working class Indian families are not making that kind of calculation. Children's earning power is seen as a valuable extra resource.

Tiruppur has acted as a magnet drawing large numbers of (relatively unskilled) workers from the surrounding areas and from further afield within the state of Tamil

Nadu, particularly during the last ten years. Estimates 1 for the total workforce (SIHMA) over a twenty five year period were: 3,000 (1960), 7,000 (1970), 20,000 (1980) and 40,000 in 1985. Census figures for non-household industry increased from a total of 35,396 in 1970 to 62,065 in 1980 (this would not include children, which the SIHMA estimate was supposed to do). Of the 45 workers interviewed, 8 men came from Tiruppur; 12 came from villages outside Tiruppur (up to 42 kms away), 1 from Madurai, 1 from Ramanathapuram, 1 from Madras and 1 from Pollachi. Of the women 7 came from Tiruppur, 4 from nearby villages, and 2 from Kerala. Of the children five all now live in Tiruppur, but 4 came originally from villages. In these cases, the whole family moved to Tiruppur to work. One already lived in Tiruppur.

Of these same 45 workers, all but 4 of the workers have had knitting or related textile jobs - such as weaving. Or they have had no other kinds of job before starting in the knitting industry. Unlike seeking work in the large spinning or ginning factories, it is not difficult to obtain a job in the knitting industry in Tiruppur. The majority of workers begin work if not as a child worker, then in early adolescence and gain skills from helping machinists (in fabrication units or helping sewing machinists); as checkers or in packing jobs. None of the workers interviewed saw any part of their working lives as including any kind of formal training with the one possible exception of young boys or adolescents helping knitting machinists. Many of the owners of the larger firms complained of labour shortages and said that they kept notices advertising jobs outside their firms for most of the year. These notices were certainly in evidence during the fieldwork period.

In the accounts given by workers of their circumstances, the overall picture which emerged during the course of fieldwork was that this industry has acted as a focus of opportunity for many people, (often without any skills or training at all, although many workers have had some education) in the town itself and in surrounding areas. Because the sector is largely unregulated and child labour is to all intents and purposes ignored, youngsters can readily obtain jobs as helpers and then quite

¹ The truth is that there is no accurate way to assess the numbers of people employed in this industry. The 1981 Census does not disaggregate the four sectors of construction, trade and commerce, transport, storage and communications and other services. so that no comparison with the 1971 figures (except in the aggregate) can be made. The other two main sources of information: the Factories Inspectorate lists and the registrations with the Directorate of Industries and Commerce drastically understate the numbers employed, particularly the latter. An indication of the extent of the latter's inaccuracy is revealed by a comparison of the approximate numbers employed across 69 units of production (the total of units in my 25 firm sample) which came to 3,500 against the officially recorded figures of those employed listed in DIC records in 1985 - 11,073 for 1915 units!

quickly pick up the skills they need to eventually begin work cutting, ironing or machining.

d) The conditions of work and struggles over pay and productivity: the emergence of a class for itself?

Working conditions are, on the whole, what one might expect to find in a largely unregulated sector of industrial production in a highly unevenly developed country such as India. By unregulated is meant a sector where production takes place under conditions largely unaffected by related legislation. Jobs are, on the whole, poorly remunerated relative to other industrial sectors. Daily wages are nevertheless, for the most part, above the legal minimum requirement of Rs16 per a day, as it was at the time of fieldwork in 1986. (India has had a Minimum Wages Act since 1948, amended by various State Legislatures). However, the concept of a minimum wage is complex, and such legislation, therefore, both highly problematic to formulate and under certain circumstances virtually impossible to implement. Compared to other branches of the textile industry, particularly the mill sector whether private or nationalized, wage rates in the knitting industry are a comparative pittance, even allowing for some variation within the industry.

Conditions of work are also largely unregulated and are highly variable, ranging from fairly well ventilated, adequately spatially organised factories to classical sweat-shop conditions in tiny, dirty, noisy and cramped rooms. Moreover, even in those firms in Tiruppur which are in theory regulated (for example where they are registered with the Factories Inspectorate) the labour force is substantially unaffected, certainly as regards wage rates, and often as regards overall conditions of work. It was reported by the CITU (Centre of India Trade Unions, affiliated to the CPI(M)) Secretary (who was the subject of one of several lengthy interviews) with not inconsiderable cynical amusement that not only was the Factories Inspectorate somewhat understaffed (two people who dealt with the whole of Palladam taluk), but the degree of co-ordination necessary to achieve any measure of success in attempting to pressure enterprises to conform totally undermines the task in hand. There was not only the Factories Inspectorate, but different Inspectorates for Employees State Insurance and for Provident Fund; in addition, the Tiruppur Municipality had to grant a health and safety licence to which the Electricity Board had to agree. Moreover, "you can bribe them all and in many cases for less than the small amount they would be able to levy as a fine". (CITU Interview, December, 1986)

Compared to the powerloom industry (also a sector of the textile industry which has rapidly expanded in recent years and is also almost entirely unregulated) both from the point of view of noise 'pollution' in powerloom workshops (which reaches unbearable levels in small spaces crammed full of 100 or more looms) and the very considerable danger of industrial accident, the knitwear industry is pleasant indeed. Knitting machinery is quiet and revolves, so does not slam back and forwards like the looms; likewise, sewing machines are not particularly dangerous pieces of equipment.

But despite these relatively favourable points, men, women and children work unremittingly long hours. A typical working week (across all jobs in the industry) would be six days a week and each day a one and half shift: 12 hours in all. That is a 72 hour working week. There is no over-time pay recognizable as such - 'tea money' of Rs. 1 or 2 for the last half shift was the only additional payment. Moreover, the new boom in exported goods, which imposes strict constraint on production schedules, can mean that particularly towards the end of a contract period, working days of 20 hours are not infrequent. Children also work these hours and many will sleep on the premises for a few hours before starting work the next day¹. The vast majority of workers in all sections of the industry (with workers in the dyeing units the only exception) are paid on a piece-rate basis, have little or no access to either ESI (Employees' State Insurance) or pension funds (Provident Fund), are not remunerated in case of sickness or industrial accident and in general take little or no holiday time (since it is unpaid). It is, as the garment industry has tended to be in many countries besides India² a seemingly predictable example of what can happen under conditions of capitalist production in a labour-intensive, poorly regulated, low wage industrial sector. Work is (to freely adapt Hobbe's aphorism) nasty, brutish and long.

However, one of the most interesting findings during fieldwork was that Tiruppur, unlike many other small-scale sectors of industry in India has a recent history of both active, and to some extent successful struggle by workers and unions. There have

¹ During fieldwork I lived with a family who owned a knitting enterprise. The owner had been given an order for a German company (through an agent in Bombay) and had had trouble getting the T shirts dyed the right colour. He ran out of time and the children working in his workshop (along with all the other workers) worked for a total of 5 days between 18 and 20 hours each day to finish packing all the goods. The irony in this case was that in the end he had to air-freight the order which cost so much that all the profit on this particular deal was wiped out.

² See Pearson and Elson, 1984; Lamphere in Zimbalist (ed), 1979; and OU Third World Studies Case Study 7, 1983.

been a number of strikes over a ten year period, many of which have been related to a report prepared by the Madras Productivity Council in 1972. In this report, job descriptions and workload specifications were laid down for the whole industry. In order for members of the Productivity Council to come to a decision about norms in the knitting industry, time studies were undertaken (Taylor fashion) for various operations across different counts of hosiery goods. These different counts were grouped into three categories¹. Sizes were grouped into four categories, each with different work load assessments. Workloads were then set for these four size categories to cover production in dozens per person per shift. These workloads covered the following job categories: cutting, overlock, chain/chainlock, flatlock; labelling; damaging (checkers); ironing; packing and folding. For the knitting machine attendant the number of machines to be allocated to one attendant was assessed as follows:

Counts of yarn 20s, 24s and 30s	Numbers of machines per machine attendant		
plain	4		
Motta, medium and interlock	5		
Fine plain counts	6		
Fine counts, interlock	6		
Rib	2		
Non-sinker body	2		

The number of feeders on the machines should not exceed 100.

Essentially, the Unions rejected these workload specifications and for two main reasons: firstly, because it was claimed that their representatives had not been present during these time and motion studies (using stopwatches); and secondly, (since the majority of workers are paid by the piece) the calculations covered only piece-rate systems where productivity is, of course, high and statutory breaks nil. The matter was then referred to an Industrial Tribunal. The Tribunal found in favour of the MPC and moreover objected to the Union demand for uniform wage rates across the industry (as opposed to variable piece-rated wages).

"It also rejected the plea for uniform wages in such a non-scheduled industry - the smaller ones are likely to be elbowed out if the same standards are made applicable to bigger ones.." (Financial Express, March 13, 1981)

^{1 20}s and above, up to 26s (motta varieties); 26s and above up to 34s (medium varieties); and 36s and above (fine varieties). Madras Productivity Council, 1972.

But although it rejected that demand, it did accept that wage rates in the industry were extremely low, and proposed a 25% increase in wage rates in return for a 13% increase in productivity.

Underlying these responses is the more general question of what is implied for workers (and capitalists) by time-rated systems (or piece-rated) systems of payment. In a strict sense, it might be argued that the Unions' response to the Tribunal's accepting the norms of the Productivity Council is illogical, since there was no other means by which such norms could have been constructed. (Although that does not answer the objection that their representatives were not present when these studies were conducted). What is really at issue for the Unions is the broad objection to the piece-rate system as a means of payment.

"[..what we want]..what all the workpeople want here is the piece-rate system scrapped and payments to be made on time-rate basis in all the industrial establishments in the knitting industry..." (CITU General Secretary, interview, December, 1986)

"[In 1984 we] demanded Rs.19 per day to be basic pay for cutters, tailors, machinists and ironing masters. The rest [we wanted to get] Rs.12 per day, plus dearness allowances of approximately Rs.45 per month as well as a 10% increase in the piece-rates.. But we are working more generally towards the abolition of piece-rates.." (AITUC General Secretary, interview, December, 1986)

Over 100 years ago, Marx (Capital Vol. 1, 1976 pp. 683-700) made some acute analytical observations about time and piece-rated systems of payment (the payment according to the duration of labour or by the amount of its product).

"Given the system of piece-wages, it is naturally in the personal interest of the worker that he should strain his labour-power as intensely as possible; this in turn enables the capitalist to raise the normal degree of intensity of labour more easily. Moreover the lengthening of the working day is now in the personal interest of the worker, since with it his daily or weekly wages rise....(p. 695-96)...From what has been shown so far, it is apparent that the piece-wage is the form of wage most appropriate to the capitalist mode of production". (p.698)

A relevant comment in an article (Business India, 1984) underlines the validity of this analysis:

"More than 95% of the workers are employed on piece rates, which were introduced by the units that proliferated in the seventies. They evoked little resistance from workers whose wages after an intense

(typically 14 hour) day are much higher [now] than they were under time rates. K. Selvaraj, a DMK trade unionist in the industry, laments, 'the workers were starstruck by their daily earnings. They didn't sit down and reflect what this meant in the long term; they weren't bothered about the provision of the Factories Act".

It is worth noting too that one effect of a piece-rate system is to do away with the necessity of close supervision of workers.

"...piece-wages make it easier for parasites to interpose themselves between the capitalist and the wage-labourer, thus giving rise to the 'sub-letting of labour'. The profits of these middlemen come entirely from the difference between the price of labour which the capitalist pays and the part of that price they actually allow the worker to receive. In England, this system is called, characteristically, the 'sweating system'".(Marx op cit, p. 695)

The inside contract (jobworking) system in Tiruppur allows substantial use to be made of just such middlemen.

So, many of the actions of the unions and workers have been in protest against norms which they have always disputed. Following the initial Industrial Tribunal a Labour Tribunal court decision was made in 1976 accepting the Madras Productivity Council's original findings. These findings, as the Unions have always claimed, reflected suicidally high work loads and sought to institutionalize productivities which were only as high as they were because workers could not otherwise have made a living wage. Workloads of 60-80 dozen per day in machining were treated as normal and, in short, unions claimed that both the Council and the later tribunal decisions were in support of the owners.

These disagreements finally culminated in a strike in 1981 (49 days) where payment of ESI and Provident Fund was demanded plus a decision to agree considering revising the work load specifications. The suggested specification was 36 dozen and no piece-rated payment system. This work-load was agreed by both Unions and owners but at that point, the State Government intervened and said it would form a tripartite panel to consider the whole case in detail. However, it was also agreed that an interim pay hike of 25% should be implemented. The panel did not report and in 1984 a strike (which lasted a total of 127 days) was called in protest at the situation. During that time, the same demands were made by the Unions and these were then referred to the Labour Court, which was supposed to give the results of a Court decision within six months. In the meantime, another 10% hike in wages was agreed, plus dearness allowance to be paid each month for all workers. At the time of

fieldwork, the committee still had not reported and Unions were again making the same demands plus another wage increase of 35% in addition to the old claims for PF and ESI. They were also pressing for all firms to keep accurate muster rolls.

These two strikes, 1981 and 1984, could be considered quite successful in some respects. Increases in basic wage rates were twice achieved as well as the widespread payment of dearness allowances - albeit with considerable variation within the industry, with some (larger) firms more ready to concede than others. The payment of dearness allowance (an index-linked payment which means small additions to basic rates, rising each year) is quite a victory for piece-rated workers. However, despite these increases - many workers' wages are very low indeed, relative to both minimum wage levels and other workers in the (regulated) mill sector of the textile industry. Neither do these struggles take account of the large percentage of children in the labour force which continues to provide a pool of exceptionally cheap labour and who earn well below legal minimum wage levels. While many employers claimed that they paid men and women equally for the same jobs: firstly women were not so easily able to obtain work in the areas considered skilled, machining, ironing and cutting, and secondly, there is considerable evidence that even if they do these jobs, men still earn higher wages¹.

5 Conclusions

Overall, the forms of labour organization in Tiruppur carry a number of advantages from the point of view of owners - notably, that by allowing them to claim the (in many cases) spurious status of SSIs, they evade a whole range of legal responsibilities to workers (welfare/insurance payments and so on). Such forms also allow them to evade the problems of direct control over a large concentrated work force and, therefore, the dangers of increased worker solidarity and the enhanced capacity for effective trade union organization which many employers explicitly acknowledge as dangers they wish to avoid.

Whilst this is so, jobworking, by allowing the fragmentation of production structures - both spatially and organizationally - makes it impossible for capitalists to enjoy the degree of control over the labour process which facilitates Braverman-type

¹ Having said that, it is not possible to establish from the data collected whether this is because they work, on the whole, fewer hours than men, receive lower piece-rates or whether their lower wages are a combination of both these factors.

'deskilling' processes. Indeed, the process of expansion of the Tiruppur knitwear industry can also be seen as a generalized process of skill *acquisition*. Workers tend to acquire a range of different skills, in different workshops (since there has been a shortage of labour given the very rapid expansion of the industry). In a number of cases, this allows those with any entrepreneurial talent or ambition at all to set up their own small independent businesses. Such people continually swell the ranks of the 'petit bourgeoisie'. Moreover, if we agree that jobs may be attributed 'skilful' by those who exert control over the labour process, capitalists in Tiruppur attenuate this power by relying on job-working. In the same way, they also attenuate opportunities to intensify work through the detailed attention to task specialisation and rationalisation in combination with more sophisticated (i.e. productive) machinery. The overall tendency has been to rely, rather, on extending the length of the working day. In a Marxian analysis, this represents the extraction of 'absolute' surplus value rather than the extraction of 'relative' surplus value. To some extent, however, as we have seen, paying piece-rates serves to intensify work in any case.

From the workers perspective, jobworking perpetuates the existence of numerous, small, units of production and with that allows owners to flout or ignore questions related to conditions of work. Nevertheless Tiruppur's industrial reality exhibits highly contradictory tendencies. On the one hand, jobworking enables large numbers of small capitalists to come into existence, and with it the perpetuation of a 'petit bourgeois' consciousness. On the other, an increasingly sophisticated class consciousness which has given rise to a determined struggle for improvement. It is the latter that is both surprising and unusual in a workforce perpetually fragmented through spatial separation exacerbated by jobworking and the internal splitting of firms. And it is this combined with an economic context of expansion which has allowed the labour force at least some improvement in pay levels.

6 References

Baker, C.J. (1984) An Indian rural economy 1880-1955. The Tamilnad Countryside, Clarendon Press, Oxford

Bernstein, H. (1987) 'Capitalism and petty commodity production' *DPP Working Paper No. 3*, Open University, Milton Keynes

Braverman, Harry (1974) Labor and Monopoly Capital. The Degradation of Work in the Twentieth Century Monthly Review Press, New York and London

Brighton Labour Process Group (1977) 'The capitalist labour process', Capital and Class Vol. 1 pp.3-26

Burawoy, M. (1978) 'Towards a Marxist theory of the labor process: Braverman and beyond' *Politics and Society* Vol. 8 nos. 3-4 pp. 247-312

Business India, (1984) 'Troubles at Tiruppur: an end to cheap labour'

Cawthorne, P. (1990), 'Amoebic capitalism as a form of accumulation: the case of the cotton knitwear industry in a South Indian town', PhD dissertation, Open University, Milton Keynes

Coombs, Rod (1978) 'Labour and monopoly capital' (review article), New Left Review, 107 January-February pp.79-86

Cutler, T (1978) 'The romance of labour', *Economy and Society*, Vol. 7 No. 1 pp. 74-95

Elger, T (1979) 'Valorisation and 'deskilling': a critique of Braverman' Capital and Class Vol. 7 pp. 58-99

Friedman, A (1977) Industry and labour, Macmillan, London

Friedman, A (1985) 'Managerial strategies, activities, techniques and technology: towards a complex theory of the labour process' unpublished draft paper, University of Bristol

Government of India (1971) Series 19 Village and Townwise Primary Census, Coimbatore District

-ditto- (1981) Series 20 Tamil Nadu General Population tables.

Harris, J. (1982) 'Character of an Urban Economy. Small-scale production and labour markets in Coimbatore', *Economic and Political Weekly*, Vol XVII, Nos. 23 & 24 June 5 & 12

Kothari, Smitu (1982) 'There's blood on those matchsticks', *Economic and Political Weekly* July 2 pp. 1191-1202

Lazonick, W. (1979) 'Industrial relations and technical change: the case of the self-acting mule', Cambridge Journal of Economics, 3 pp. 231-262

Lee, D.J. (1981) 'Skill, craft and class: a theoretical critique and a critical case', Sociology, Vol. 15 pp. 56-78

Littler, C.R. (1978) 'Understanding Taylorism', British Journal of Sociology, Vol. 29 No. 2, pp. 185-202

Littler, C.R. and SALAMAN, S. (1982a) 'Bravermania and beyond: recent theories of the labour process' *Sociology*, Vol. 16 No. 4 pp.251-269

Littler, Craig R (1982b) The development of the labour process in capitalist societies Heinemann Educational Books, London

Mackie, J.W. (1981) The Chief Inspector of Factories list as a source of data on the distribution of industry in Tamil Nadu, South India' SOAS Occasional Paper No. 4 (New Series)

Mazumdar, Dipak (1984) The issue of small vs. large in the Indian textile industry World Bank Working Paper No. 645, The World Bank, Washington

Mead, D.C. (1984) 'Of contracts and subcontracts: small firms in vertically disintegrated production/distribution systems in LDCs', World Development, November/December pp. 1095-1106

Mitter, Swasti (1986) 'Industrial restructuring and manufacturing homework: immigrant women in the UK clothing industry', Capital and Class Spring

Murphy, E. (1981) Unions in Conflict: a comparative study of four South Indian textile centres 1918-1939, Manohar Publications, New Delhi

Open University, (1983) 'Clothing the world: first world markets, third world labour' Case Study No. 7, Third World Studies, Open University Press, Milton Keynes

Palloix, C (1976) The labour process: from Fordism to neo-Fordism, CSE Pamphlet No. 1, London

Pearson, R. and Elson, D. (1981) 'Nimble fingers make cheap workers: an analysis of women's employment in Third World manufacturing' *Feminist Review*, Vol. 7 pp. 87-107

Samuel, R. (1977) 'Workshop of the world: steam power and hand technology in mid-Victorian Britain', *History Workshop Journal*, No. 3 Spring pp. 6-72

Schmitz, Hubert (1982) Manufacturing in the Backyard, Frances Pinter, London

Sreenivasan, K (1984) *India's textile industry*, South India Textile Research Association, Coimbatore

Stark, D (1980) 'Class struggle and the transformation of the labor process' Theory and Society, Vol. 9 No. 4 July pp. 89-130

Taylor, P.S. (1979) 'Labour time, work measurement and the commensuration of labour', Capital and Class Vol. 9 autumn, pp. 23-37

The Hindu (1984) The strike in Tiruppur, July 8

Unido (1979) Monographs on appropriate industrial technology No. 6 UNIDO, Vienna p. 41-61

Wood, S. (ed) (1983) The degradation of work, Hutchinson & Co

Zimbalist, A (ed) (1979) Case studies on the labor process, Monthly Review Press

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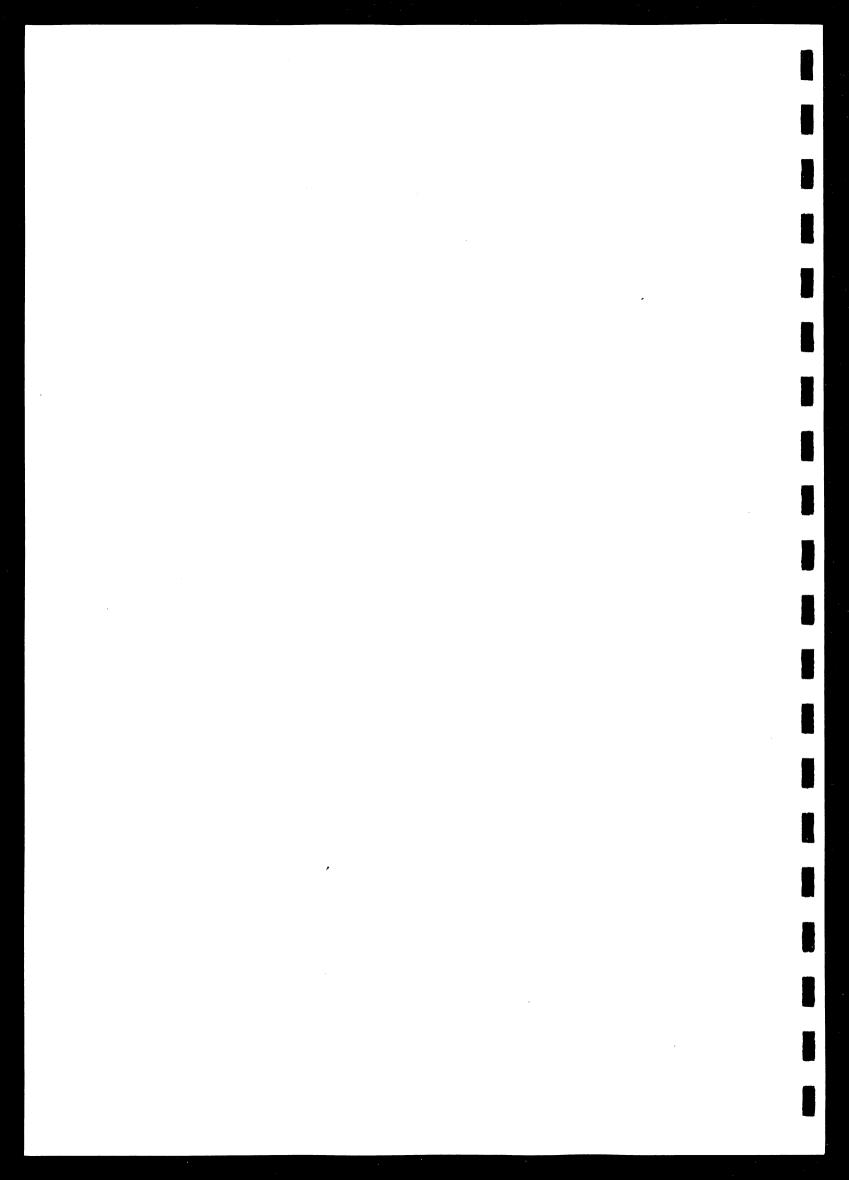
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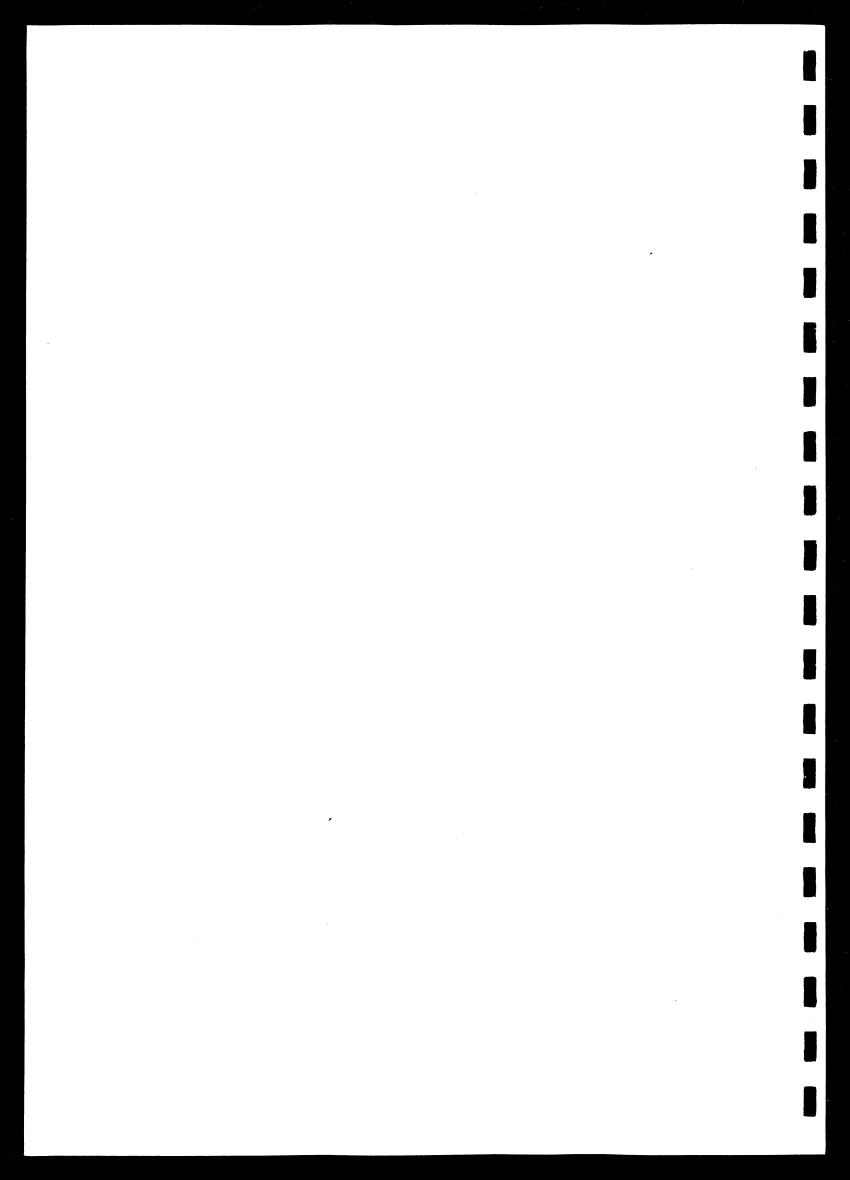
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