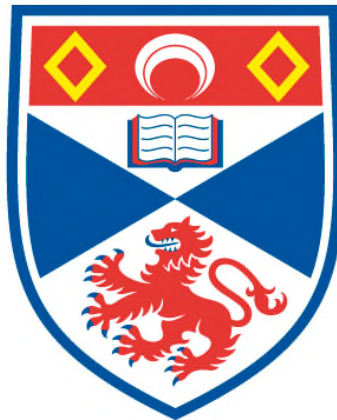


**GENDER, SPACE AND POWER:
DISCOURSES ON WORKING WOMEN IN DUNDEE'S
JUTE INDUSTRY, C. 1870-1930**

Emma M. Wainwright

**A Thesis Submitted for the Degree of PhD
at the
University of St Andrews**



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Ph.D. Thesis
August 2002



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Abstract

This thesis explores the discourses on working women in Dundee's jute industry c. 1870-1930. It examines how working women became knowable and visible, and some of the ways in which women negotiated the relationships of power within which they became placed. Dundee was dubbed 'a woman's town' because of the central role that women played in the city's jute industry. Although a recent range of historical scholarship has started to ask new questions about women's identities and experiences of work, this study stresses the importance of engaging more widely with questions of geography, gender, discourse and power-knowledge. I explore how working women were observed, represented and categorised through a variety of material spaces - mills and factories, streets and homes, and through a range of conceptual spaces - economic, philanthropic and medical. The thesis focuses on the very processes and gendered discourses through which working women were made known - the practices of domination and resistance, and surveillance and control, and the different forms of knowledge production, including journalism, accountancy and philanthropy. Particular attention is paid to the ways in which divisions between work and home, and boundaries between public and private, were affirmed, reaffirmed and contested by working women and other urban actors. It is suggested that the work of Michel Foucault and a wider range of geographical and feminist theory provide us with a particularly rich and pliable set of conceptual resources with which to probe working women's geographies and the processes of power-knowledge, in the Dundee context. I suggest that the web of discourse that produced Dundee's working women as objects of concern was aimed not at preventing women from working, but at scrutinising and managing every aspect of their lives.

Declaration

- i) I, Emma M Wainwright, hereby certify that this thesis, which is approximately 94,000 words in length, has been written by me, that it is the record of work carried out by me and that it has not been submitted in any previous application for a higher degree.

Date.. 05/08/02..... Signature of candidate... ..

- ii) I was admitted as a research student in October 1998 and as a candidate for the degree of Ph.D. in October 1999; the higher study for which this is a record was carried out in the University of St Andrews between 1998 and 2002.

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- iii) I hereby certify that the candidate has fulfilled the conditions of the Resolution and Regulations appropriate for the degree of Ph.D. in the University of St Andrews and that the candidate is qualified to submit this thesis in application for that degree.

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knowledge of Dundee has been invaluable as I have tried to navigate through Dundee's history and make sense of the archives. Thanks too to Eleanor Gordon for the loan of her oral histories which have been a valuable addition.

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Introduction

During the nineteenth century, working women were made increasingly visible. They were more frequently spoken of, studied, defined, and brought under an array of technologies of surveillance. To borrow the words of Michel Foucault, this thesis seeks to:

account for the fact that working women were spoken about - to discover who did the speaking, the positions and viewpoints from which they spoke, the institutions which prompted people to speak about them and which stored and distributed the things that were said.¹

I will explore the discourses and practices that produced the 'working woman' of Dundee as a figure of concern, and specifically the productions of power and knowledge through which such discourses and practices were formed.

The thesis can be read at two levels. As a cultural-historical geography of the late Victorian and Edwardian city it provides a study of a particular instance of modernity and an exploration of women and urban-industrial space. However, the thesis is based, ostensibly, on a close engagement with a specific city and local set of archives. It involves a detailed engagement with a multifarious array of disciplinary technologies pertaining to Dundee, c.1870-1930, that were used to pronounce and objectify working women. These disciplinary mechanisms, and their effects of power and knowledge, are therefore a central theme of the study. I am interested in the

¹ M. Foucault, *The history of sexuality, Vol.1: The will to knowledge* (London: Penguin, 1979) 11. I have replaced the word sex with that of working women. In this text, Foucault reverses traditional causal understandings by suggesting that sex was constructed through, and a product of, various discourses, rather than a cause of them.

geographies that these discourses produced and worked through, and how space was implicated in understandings and representations of working women.²

By focusing on a range of geographies - some which operated at the national and global scale, and others in completely local ways - I suggest that there was not one singular discourse on working women but again, following Foucault, a “multiplicity of discourses produced by a whole series of mechanisms operating in different institutions.”³ These discourses were not always complementary; indeed, they could be contradictory.⁴ However, it is the fact that working women were discussed at all, and discussed by a diverse range of individuals, institutions and organisations, that is of primary interest here.

The provocation for such discussion is the importance of women’s labour in Dundee’s jute mills and factories, and the complication of the gender roles inscribed in the division between public and private. Rather than being prevented from working and assigned to the private world of the home, the women of Dundee worked en masse in the jute works and were deemed to need close supervision by their male peers.

² Miles Ogborn notes : “Modernity is most often a matter for grand theory and for portentous pronouncements heralding either its origin or demise. It can however, also be a matter of close investigations of the spaces and places of the past”. Although it is not an aim of this thesis to debate the meaning of modernity, I extend Ogborn’s emphasis by investigating the spaces and places in and through which working women were made known. M. Ogborn, *Spaces of modernity: London’s geographies 1680-1780* (London: The Guilford Press, 1998) 1.

³ Foucault, *History of sexuality, I*, 33.

⁴ Foucault notes that, “There is not on the one side, a discourse of power, and opposite to it, another discourse that runs counter to it. Discourses are tactical elements or blocks of operating in the field of force relations; there can exist different and even contradictory discourses within the same strategy.” *Ibid.*, 101-2.

Juteopolis - 'Dundee, the One-Industry City'⁵

This thesis focuses on the city of Dundee, situated on the east coast of Scotland (see plate 1). And by way of introduction to the city and this thesis I want to start by sketching the emergence of this 'one-industry city' and its wider national and imperial connections.

Until the mid-twentieth century, Dundee's industrial reputation was based almost exclusively on the manufacture of course textiles. From the woollen industry of the sixteenth century, through the flax industry of the eighteenth century, to the jute industry from the 1830s onwards, Dundee has had a long history of textile manufacturing. Prior to Scotland's Union with England in 1707, the course woollen industry had been the staple industry of Dundee. However, after the Union, Dundee became increasingly unable to compete with the larger English woollen industries and gradually moved to the courser fibre of flax. Flax became the industrial staple not only of Dundee, but of Scotland as a whole.⁶ The west of Scotland, with its locational advantages for trade and marketing, along with the other linen centres of Belfast and Leeds, concentrated upon the production of finer materials. Dundee however, specialised in the manufacture of coarse, medium and heavy linens, particularly osnaburgs⁷, sheetings and sailcloth.⁸ Although other industries, including

⁵ This is how Checkland and Checkland referred to Dundee's urban inheritance. In contrast, Edinburgh was the 'Semi-capital', 'Glasgow, the Industrial Powerhouse', 'Aberdeen the Versatile'. O. Checkland, and S. Checkland, *Industry and ethos: Scotland 1832-1914* (Edinburgh: Edinburgh University Press, 1997), 35-47.

⁶ W. H. K. Turner, "The development of flax-spinning mills in Scotland 1787-1840", *Scottish Geographical Magazine*, 98 (1982) 4-15

⁷ Osnaburgs acquired considerable fame and became the staple of the Dundee area. The name derives from Osnabruck in Germany and denoted a cloth of plain weave, distinguished by its coarse flax yarns



Plate 1: Map of Dundee, 1899.
Source: *The Dundee Directory*, 1899.

the buckle, leather tanning, thread, sugar-refining and glass-making industries existed at varying times in parallel with textiles, none were able to endure and adapt as Dundee's textile industry did.⁹ With the introduction of steam-powered flax-spinning in the 1820s¹⁰, Dundee's pre-eminence as a textile town grew and by 1851 the city's textile industry employed 11,382 hands, and imported 40,000 tons of flax.¹¹ This industrial expansion was complemented by the growth of the city's railway network and harbour, enhancing its position as an important trading city.¹²

Raw jute first arrived in Dundee in 1822, but due to the coarseness of the fibre and a lack of appropriate technology or real incentive, early efforts to spin it failed. However, such incentive soon came in the 1830s as a number of unfavourable factors coalesced to make jute a more attractive industrial prospect than flax. In 1853, war between Britain and Russia appeared increasingly likely, and Dundee manufacturers grew concerned that they would no longer be able to import flax, which came from the Baltic lands, controlled by the Russian empire. A trade depression, accentuated by a severe fall in the price of bagging in New York (then a major Dundee market), and the opening of direct trade between India and Dundee, further stimulated the search for and use of a cheaper fibre.¹³ Jute was a cheaper fibre than flax or tow.

and heavy wefts. See W. H. K. Turner, "The concentration of jute and heavy linen manufacturers in east central Scotland, *Scottish Geographical Magazine*, 82 (1966) 29-45, 31.

⁸ See D. Chapman, 1938, "The establishment of the jute industry: a problem of location theory?", *The Review of Economic Studies*, 6 (1938) 33-55.

⁹ B. Lenman, C. Lythe, and E. Gauldie, *Dundee and its textile industry 1850-1914* (Dundee: Abertay Historical Society, 1969), 11.

¹⁰ Turner, "The concentration of jute and heavy linen manufacturers".

¹¹ *Dundee Advertiser*, 18 June 1851.

¹² N. Beckles, "Textile and port growth in Dundee", *Scottish Geographical Magazine*, 82 (1966) 90-98.

¹³ Lenman et al, *Dundee and its textile industry*.

Despite initial aborted attempts to spin jute, technical improvements in machinery and the softening of jute fibre with whale oil enabled a satisfactory yarn to be spun by 1832. But, it was not until the 1850s that jute began to rival traditional fibres. The introduction of jute was not initially welcomed by all. In 1839 the *Dundee Advertiser* reported that the reputation of Dundee textiles was lowered by “jute and other rubbish in Dundee materials.”¹⁴ Change soon came, however, and the main stimulus came from the rapid expansion of the carrying trade, with cotton, coffee, grain, flour, sugar and so forth being carried in jute bags. Jute “became the world’s carrier, and its manufacture in Dundee became one of the most spectacular boom industries in nineteenth century Britain.”¹⁵ This expansion is reflected in the imports of jute into Dundee:

Table 1: Jute Imports to Dundee, 1831-1911.

<i>Year</i>	<i>Imports of Jute into Dundee (in tons)</i>
1831	Nil
1841	2,661
1851	16,928
1861	35,716
1871	94,608
1881	160,089
1891	344,720
1901	321,331
1911	300,959

Source: B. Lenman, C. Lythe, and E. Gauldie, *Dundee and its textile industry 1850-1914* (Abertay Historical Society: Dundee, 1969) 105; and J. M. Jackson, “Population” in J. M. Jackson (ed.), *The city of Dundee* (The Herald Press: Arbroath, 1979) 105.

¹⁴ Cited in Lenman et al, *Dundee and its textile industry*, 13.

¹⁵ Turner, “The concentration of jute and heavy linen manufacturers”, 34

Jute imports grew rapidly from 1831 and peaked in 1891. In this same year, a 2,800 ton sailing ship named 'Juteopolis' was launched - a name that became an epithet describing the city's industrial outlook and heritage.

Much of this jute was imported from India, and Dundee's jute products were sold on international markets, especially imperial markets. Despite Dundee's peripheral position in Britain, the city's place in empire was crucial and keenly promoted within the city. When the British Association (BA) for the Advancement of Science met in Dundee in 1912, a *Handbook and Guide to Dundee and District* was produced for its delegates. The handbook sought to provide "a bird's-eye view of the City's life and interests."¹⁶ Incorporating a broad range of articles under headings including 'social and city problems', 'public services', 'industrial and commercial life', and Dundee 'as an educational centre', one article by H. T. Templeton of the *Dundee Courier* was entitled 'What Dundee Contributes to Empire'. "The City", Templeton wrote, "is no mere parochial community, sleeping on a river bank and knowing nothing of the mighty ocean beyond. Dundee's interests are world-wide."¹⁷ Templeton recited Dundee's role as shipbuilder, naval base, and centre for army recruitment. However, he gave prominence to the city's jute industry and its importance to the British Empire.

¹⁶ The preface by A.W. Paton continued: "We bespeak for it a welcome, not only from the distinguished visitors in whose honour it has more immediately been compiled, but from our fellow townsmen who may, on reading the historical, scientific, industrial, and social records, be stimulated to a closer study, and be further strengthened in their feelings of local patriotism and towards endeavour to raise the standard of life and thought in our community, and to aid all movements which aim at upholding the dignity, the standing, and the importance of a city which we are proud to claim as the place of our habitation." A. W. Paton, "Introduction", in A. W. Paton and A. H. Millar, *Handbook and guide to Dundee and district*, (Dundee: British Association, 1912) xi-xiv, xiv.

However, Dundee's rhetoric was not matched by contemporary concern and has not been met with extensive historiographical interest. That Dundee's jute industry was important to Britain cannot be doubted. Beyond its mere economic importance, Dundee's staple industry was strategically significant to the provision of sandbags, canvas and tarpaulings that were so crucial during successive outbreaks of war.¹⁸ However, it was cotton rather than jute that was seen as most economically and politically important to imperial policy makers. The size of the cotton industry was far larger and covered a wider area than that of jute, and was therefore able to muster the immediate support and attention of more than 60 Members of Parliament to further its interests. In contrast, the jute industry was almost exclusively confined to Dundee, a marginal location in the British context, and marginalised in the small representation it had in Parliament.¹⁹ As Gordon Stewart suggests:

No cabinet minister in Whitehall between the 1890s and 1947 ever thought that the Dundee industrialists were significant for the well-being of the empire. No Government - Liberal, Conservative, National or Labour - lifted a finger to help Dundee, apart from easy decisions to place large orders for sandbags when war threatened....When London did make occasional sympathetic response to Dundee, it was simply to express concern for a domestic problem in Scotland, not to attend to an industrial group that held any importance for the empire.²⁰

This geographical marginalisation of Dundee and its jute industry has been perpetuated by historians. As Stewart puts it, jute has "suffered in the less exigent world of historical scholarship because it has always remained in the shadow of

¹⁷ H. T. Templeton, "What Dundee contributes to the empire" in *Handbook and guide to Dundee and district*, 98-120, 98.

¹⁸ Dundee's jute industry always experienced a boom during outbreaks of war and it was often this that prevented earlier downsizing. See Lenman et al., *Dundee and its textile industry*.

¹⁹ See G. Stewart, *Jute and empire: the Calcutta jute wallahs and the landscapes of empire* (Manchester: Manchester University Press, 1998) 9-12.

²⁰ *Ibid.*, 195-6.

cotton”²¹, in terms of British histories of urbanisation and industrialisation²² and histories of empire.²³ Or as Catherine Nash and Brian Graham observe in a more general vein, “less attention has been paid to the different historical geographies of modernity beyond the metropolis, in the margins of Europe or in the non-European world.”²⁴ Certainly this is the position Dundee and its histories have found themselves in, at least in historiographic terms, and one of the aims of this thesis is to give Dundee a place in a more fulsome and differentiated historical geography of modernity.

The historical geography of Dundee is intertwined with that of Calcutta. Indeed, Stewart has argued that, “in spite of Dundee’s sense of primacy [over Calcutta], the lion’s share of the jute and empire story must be told from a Bengali rather than a Scottish perspective.”²⁵ While Dundee was marginal in national terms, in international-imperial terms, Calcutta has long been represented as the periphery to Dundee’s core.²⁶ Stewart tries to re-balance this, and it is necessary here to briefly explore how the two cities were bound together and the effect they had on one another.

²¹ *Ibid.*, 10

²² For example, in Asa Briggs’ text *Victorian Cities*, Dundee is only mentioned in passing (in reference to the British Association). Instead the book focuses on Manchester, Leeds, Birmingham, Middlesbrough and, of course, London. This is common place as English histories take precedence over Scottish, and English textile towns are seen as the hub of industrialisation. A. Briggs, *Victorian cities* (London: Penguin, 1990 ed.).

²³ As Stewart remarks, “it remains somewhat of a puzzle that jute has received so little notice in the history of empire.” Stewart, *Jute and empire*, 11.

²⁴ As Nash and Graham recognize in their introductory chapter “much of the work on the historical geography of modernity has focused on metropolitan centers such as London, Paris or New York.” C. Nash and B. Graham, “The making of modern historical geographies” in C. Nash and B. Graham (eds.), *Modern Historical Geographies* (Harlow: Pearson Education Limited, 2000) 1-8, 2.

²⁵ Stewart, *Jute and empire*, 7.

Although raw jute had been cultivated in India for many years, the first Indian jute mill was not established until 1855.²⁷ The majority of India's jute works were situated in Calcutta along the banks of the Hooghly River with sidings to the adjoining railway.

Table 2. Statistics for the Calcutta Jute Industry

<i>Year</i>	<i>1872</i>	<i>1882</i>	<i>1892</i>
Number of mills	5	23	24
Number of looms	1180	7094	8570
Number of spindles	13,000	130,000	177,500

Source: "The Calcutta jute mills", *DYB* (for 1894), 122.

As the statistics in table 2 demonstrate, the Calcutta industry developed quickly over a 20 year period, and in 1885 rough jute goods from Calcutta were for the first time put on the British market in direct competition with Dundee wares. This competition was acknowledged by Dundonians and in 1894, after a visit to Calcutta, the newspaper proprietor John Leng remarked, "I must confess that my visit to Calcutta has been an eye-opener, and no one who knows anything about the jute industry can visit the mills here without coming to the conclusion that as regards the common run of hessians and sackings Dundee's position is seriously threatened."²⁸ Writing at a time when the Dundee and Calcutta industries were roughly even in output, Leng's remarks were a timely warning as the 1890s saw Calcutta finally become the world's dominant production centre for jute sacks and hessian cloths. Leng's confidence that

²⁶ As Stewart suggests, "Calcutta, in spite of the intimacy which bound the two industries.... was never an appendage of Dundee." Stewart, *Jute and empire*, 22.

²⁷ Turner, "The concentration of jute and heavy linen manufacturers", 40.

²⁸ "The Calcutta jute mills", *DYB* (for 1894), 113.

“the ability and enterprise of [Dundee’s] capitalists will rise to the occasion” was thwarted, as by 1913 Calcutta’s production had risen to four times that of Dundee.²⁹

Dipesh Chakrabarty notes that, “[t]here is an element of irony in the fact that the eventual supremacy of the Calcutta mills [over their Dundee counterparts] owed a great deal, initially at least, to their Dundee connection.”³⁰ The first spinning and weaving works in Calcutta were established by the Borneo Company and Messrs George Henderson & Co. of London. However, it was Dundee specialists who supplied the machinery and Mr. Thomas Duff, a Dundonian, who watched over the company’s interests for the first 10 years of the company’s existence. After returning to Dundee, Duff contacted fellow Dundonians and floated the Samnugger Jute Factory Co., Ltd. (1873), and later the Titagher Jute Factory Co., Ltd. (1884). About this time, another group of Dundee capitalists floated what became known as the Victoria Jute Co., Ltd, and the capital, including debentures invested in the three companies, was held largely by shareholders in and around Dundee.³¹ Despite these ventures, a series of articles in the *Dundee Advertiser* in 1880 urged Dundee investors to avoid the ‘shaky’ Calcutta mills:

If any Dundee capitalists should desire to embark in the Jute manufacturing business in India, we would recommend to their notice the old English adage that ‘Fools build houses and wise men live in them’...Our advice just now to people desirous of investing capital in the Jute manufacturing trade at Calcutta is similar to that of *Punch* to those about to marry - ‘Don’t’.³²

²⁹ This was in spite of Dundee’s industry having moved into finer and more specialised lines of jute. Stewart, *Jute and empire*, 15.

³⁰ D. Chakrabarty, *Rethinking Working-Class History - Bengal 1890-1940*. (Princeton: Princeton University Press, 1989).

³¹ Templeton, “What Dundee contributes to empire”, 119.

³² “The jute mills of Bengal” *Dundee Advertiser*, 1880.

In spite of this call, the *Handbook and Guide* noted that the “overseers, managers and mechanics in the Indian jute mills [were] almost wholly recruited from Dundee”,³³ and Stewart has described how a “thick network of communications linked the two jute cities, from the weekly exchange of information on markets and prices to private letters between directors, managers and jute brokers.”³⁴ Therefore, through actual manpower and expertise, Dundee had helped to shape the early Calcutta industry, and competition from Calcutta led to the eventual decline of the Dundee industry.³⁵

This thesis focuses on the Dundee side of the jute industry, but it is important to recognise at the outset that the city operated in an imperial world where the opening up of free trade presented the industry with both new trading opportunities and greater competition. Echoes of empire are felt at different points through out this thesis, and in quite different and seemingly disparate contexts, and a recognition of this extended geography underpins some of the ideas and the very place-specificity of this study.

Dundee - a Woman's Town

Dundee is a woman's town and most of its productive labour is in her hands.³⁶

³³ Templeton, “What Dundee contributes to empire”, 118-119.

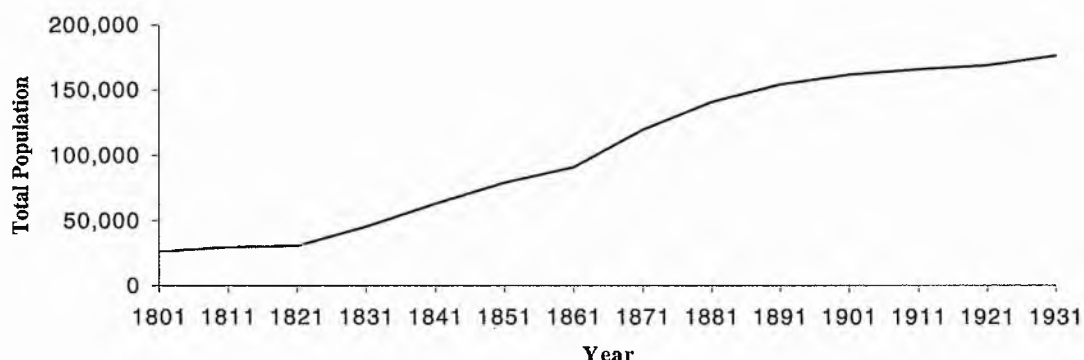
³⁴ Stewart, *Jute and empire*, 19.

³⁵ Dundee also had to compete with a growing industry on the continent with the first jute factory in Europe outside of Scotland opened in Brunswick in 1866. Again Dundee supplied both the machinery and skilled labour.

³⁶ D. Lennox, *Working class life in Dundee for twenty-five years, 1878-1903* (Dundee University: unpublished thesis, 1905).

Dundee's 'one-industry' status is most clearly articulated in the city's population and employment structures.

Figure 1: Population Growth in Dundee, 1801-1931



Source: Census, in J. M. Jackson, "Population" in J. M. Jackson (ed.), *The city of Dundee*, (The Herald Press: Arbroath, 1979), 90.

Figure 1. shows the city's population growth over a 130 year period. In 1801, the city's population stood at 26,084. However, by 1931, it had reached 175,585. The rate of growth was fastest from 1801-1881, after which it declined to under 0.5 per cent per year. However, as the number of deaths exceeded the number of births, this increase in population was due to a steady in-migration to the city - in-migrations that were closely associated with the fortunes of the textile industry. As the *Dundee Advertiser* put it, "[w]henver there was a want of hands, they [the workers] informed their friends over the [Irish] Channel and a new importation occurred."³⁷ In 1861, 61.5 per cent of Dundee's population was born within the county, 20 per cent came from other counties, and 15.6 per cent from Ireland.³⁸ According to Lenman,

³⁷ Lenman et al., *Dundee and its textile industry*, 122.

³⁸ See E. Gordon, *Women and the labour movement in Scotland, 1850-1914* (Oxford: Clarendon, 1991).

Lythe and Gauldie, jute labour was supplied by “immigrants crowding in from the Angus countryside, the Highlands and Ireland.”³⁹ H. Jones notes that 1891 marked the approximate end of almost a century of textile prosperity, continuous net immigration and rapid population growth in Dundee. The only counties and cities to show any population gain from Dundee (and these were extremely slight), were Glasgow, Lanark, and Renfrew where heavy engineering boomed in the second half of the nineteenth century.⁴⁰

Throughout the period 1841-1911, over 50 per cent of Dundee’s population was employed in the textiles industry. The other main areas of employment - engineering, tool-making, and metal work, building and food, drink and tobacco - together occupied at most around 20 per cent of the workforce.⁴¹ The Dundee jute labour force reached its peak between 1891 and 1911. In the latter year the census recorded 37,000 jute and flax operatives; by 1921 the Dundee jute workforce was down to 35,000.⁴²

Moreover, the jute labour market was dominated by women, and the jute industry was by far the most significant employer of female labour. Between 1871 and 1911, the jute works of Dundee employed between three-quarters and two-thirds of Dundee’s working women.⁴³ The 1901 census showed that 31 per cent of the female

³⁹ Lenman et al., *Dundee and its textile industry*, 29.

⁴⁰ H. Jones, “Population” in S. J. Jones (ed.), *Dundee and district* (Dundee: BA, 1968) 237-258, 241.

⁴¹ R. Roger, “Employment, wages and poverty in the Scottish cities 1841-1914” in G. Gordon (ed.), *Perspectives of the Scottish city* (Aberdeen: Aberdeen University Press, 1985) 49-72, 55.

⁴² S. Lythe, “The historical background”, in J. M. Jackson (ed.), *The city of Dundee* (Arbroath: The Herald Press, 1979), 69-89.

⁴³ From the Census of Scotland 1871-1911. See Gordon, *Women and the trade union movement*, 141.

population of Dundee was employed in the mills, and 27,635 out of the 39,752 operatives in the textile industry as a whole were female. In addition, in the same year, “the proportion of married women who had remunerative occupations was exceptionally high” - at least 24.1 per cent compared with 6.1 per cent in Glasgow and 5.6 per cent in Edinburgh.⁴⁴ The advent of jute created a great demand for female labour, and in-migrations of women into Dundee caused a gender imbalance. As the Dundee Social Union (DSU), a philanthropic organisation, noted, “[b]etween the ages of 20 and 45, Dundee has three women for every two men, and around this significant fact hang some of the most serious problems.”⁴⁵

As the statistics suggest, the jute industry is central in any history of the city and its women and there has been a growing local awareness of Dundee’s industrial heritage. Such awareness has been fostered by the Abertay Historical Society (founded in 1947 through University College Dundee (UCD)), which has promoted a scholarly and popular interest in the history of the Angus, Fife and Perthshire area by organising public lectures on historical subjects, visits to places of historical interest, and the annual publication of papers on local history. The society was also instrumental in the formation of the Dundee Heritage Trust in 1985, the main aim of which has been to “preserve and present” Dundee’s industrial past. In 1991 the Trust took ownership of and restored the Verdant Works (a jute works formally owned by D. Lindsay) to give Dundonians and others “a living history museum where working machinery will bring back memories of the city’s long and intimate connections with

⁴⁴ W. Walker, *Juteopolis: Dundee and its textile workers, 1885* (Edinburgh: Scottish Academic Press, 1979) 86-87.

the spinning of flax and jute, for which it is so famous.⁴⁶ The re-development of the Verdant Works has been a central part of the city's recent re-marketing and re-imagining for both Dundonians and tourists, with the story of the jute industry (which was once detrimental to the city), now being actively promoted.

In addition, since the mid 1980s, Dundee's Repertory Theatre has staged several plays that relate specifically to the city's textile industry, including 'They Fairly Mak Ye Work' (1986) and more recently 'And They Kept The Bairns O Dundee Fed' (1997) which, according to David Will, have committed a sense of theoretical identity to the community.⁴⁷ 'They Fairly Mak Ye Work', written by Billy Kay, traced key episodes in the history of working class Dundee, and linked them through their impact on the life story of Sarah Craig, a jute worker. Kay has enabled the voices of ordinary Dundonians to be heard, and suggests that, "[i]t is the potential multiplicity of versions which oral history offer that makes it so compelling and indeed necessary, if a more democratic view of the past is to be arrived at."⁴⁸ In recent years, it has been through heritage projects and theatrical performances that new stories of Dundee's jute industry have started to be told to a broader audience within the city.

⁴⁵ DSU, *Report on the housing and industrial conditions of the city of Dundee* (Dundee, 1905) xii.

⁴⁶ C. J. Davey, *Verdant works and the story of jute* (Dundee: Dundee Heritage Trust, 1994).

⁴⁷ D. Will, "The community strikes back", in B. Kay (ed.), *The Dundee book: and anthology of living in the city* (Edinburgh: Mainstream Publishing, 1995) 247-251.

⁴⁸ B. Kay, "Introduction", in B. Kay (ed.), *Odyssey: voices from Scotland's recent past* (Edinburgh: Polygon Books, 1980) n.p.

Early histories of the jute industry paid only lip-service to the women workers, and focused instead on the economic development of the industry.⁴⁹ However, working women have long had a central place in more popular histories of the city. As Whatley, Swinfen and Smith have suggested:

Though most of Dundee's mill and factory workers were badly paid they were not meek or passive victims of the industrial system. They necessarily adapted themselves to their broadened responsibilities, became hardened to the remorseless discipline of the steam-driven spinning frame and powerloom, and within the works developed an impenetrable sign language by which they could communicate over the machinery's incessant rattle. Outside they could be coarse, many of them drank to excess and appeared in the police courts on drunk and disorderly charges more often than 'respectable' Victorian women should have; it was not uncommon for them to use snuff, to clear noses clogged with jute dust.⁵⁰

In contrast, "[m]any men, stripped of the patriarchal power which they could elsewhere assume with their bread-winning function, were reduced to the status of 'kettle-bilers'."⁵¹ Such definitions of the working woman and redundant man resonate through the local literature on Dundee, with the woman, crucially, scorning the 'angel in the house' role. Dundee has therefore become renowned as a city where the traditional roles of men and women were reversed.

Recent scholarly work on the jute industry and its workforce has focused on industrial conflict. Working through the structuralist-Marxist lens of labour history, William Walker's text *Juteopolis: Dundee and its Textile Workers*, for example, looks almost exclusively at the history of trade unionism in the city and its role in the

⁴⁹ See for example, Turner, "The concentration of jute and heavy linen manufacturers" and "The development of flax-spinning mills in Scotland 1787-1840", and Lenman et al., *Dundee and its textile industry*.

⁵⁰ C. Whatley, D. Swinfen, A. Smith, *The life and times of Dundee* (Edinburgh: John Donald, 1995) 115.

engendering of class consciousness. His conclusion that “it is not surprising that the history of Dundee’s textile workersshould be so largely the biographies of two men”⁵² - referring to John Sime of the Dundee and District Jute and Flax Workers Union (DDJFWU), and Edwin Scrymgeour the city’s prohibitionist leader - reflects the strong masculinist bias on recent scholarship on the industry and its working women.

In redress, Eleanor Gordon has attempted to re-conceptualise Dundee’s jute workers through the feminist conceptual lens of patriarchy. She focuses specifically on the forms of resistance and struggle that did not take male forms, and have therefore evaded scholarly analysis. She notes:

The primacy placed on continuous, stable organization, the preference for negotiation and conciliation, and the desire for public acceptance and respectability meant that organization as defined in a particular way, and any struggle which took place outside this narrow and partial definition was not deemed to be organization.⁵³

She suggests that women in the nineteenth century did frequently resort to various forms of collective action, but the equation of absence of institutional organization with absence of effective opposition has led to a neglect of the variety of forms which resistance takes, at the level of both the workplace and the community.⁵⁴ She thus shows that the ‘unorganised’ were effective and did achieve their objectives, despite unionists’ claims to the contrary and the neglect of female resistance by labour historians.

⁵¹ *Ibid.*, 114.

⁵² Walker, *Juteopolis*, 535.

Graham Smith was one of the first historians to break away from this strict focus on industrial conflict and “locate household and community at the centre of the making of a woman’s town.”⁵⁵ He has used oral histories to explore the emergence of two distinct household structures: those headed by men and those headed by women. Informed by Marxist-humanist thought, Smith’s thesis came out of the Dundee History Workshop, established in 1984. This group was set up to find new ways of exploring Dundee’s recent past. As Smith observes:

Most of the history we knew concentrated upon the rich, powerful and privileged; we felt that the past lives of people like us had been neglected. We believed that any serious investigation of our city should reveal that the story of Dundee’s past was dominated by the large proportion of working people who lived and laboured in the city.⁵⁶

The Dundee Oral History Project (DOHP) was thus set up as a ‘history from the bottom up’, committed “to redressing the balance of history.”

This recent range of work by Walker, Gordon and Smith is based on an immense amount of archival research which I draw upon throughout this thesis. Indeed, this study would have been impossible without their work which has tapped previously ignored sources. In addition, the oral histories generated and analysed by Smith and the DOHP have helped me to fill in many gaps and answer some of the many nagging questions generated by my archival materials. However, as Smith notes, “[o]f the four main Scottish cities, the least well-known in scholarly terms is

⁵³ Gordon, *Women and the trade union movement*, 113.

⁵⁴ *Ibid.*, 169.

⁵⁵ Smith, *The making of a woman’s town*.

⁵⁶ G. Smith, “‘None can compare’: from the oral history of a community” in Kay, *The Dundee book*, 169-198, 169.

Dundee”⁵⁷, and as such, there is still much work to be done both archivally and theoretically. At one level, and as a commitment to Dundee’s history, a principal objective of what follows is to contribute to filling this scholarly lacuna. I am aware that the ‘new cultural history’ appears to have by-passed historical scholarship on Dundee’s jute industry and working women, and by taking a cultural approach, I hope to provide a new reading of Dundee’s history. On another level, as a specifically geographical and spatial project, I try to develop new geographical readings of Dundee’s history, jute industry and working women. I will now turn to reflect upon the processes of archival research and set out in more detail the ideas through which my work is formed.

Power-Knowledge and Discursive Archival Research

Despite a wealth of literature on qualitative research methods, archive research has been almost completely ignored. The archives remain a mysterious place and, as a space associated with historical endeavour, geographers have only very recently started to write about the techniques and methods of archival research. When I started this project, archival research was new to me and looking around for some explanation of how to ‘do’ it, I found few pointers in recent geographical literature. However, a recent paper by Cole Harris provides a useful exception. Harris suggests that there are no cast-iron rules governing archival research. As he suggests, “[e]ssentially one is on one’s own in a world largely without rules and with boundless possibilities.”⁵⁸ Rather, historical research that is archivally based is best

⁵⁷ Smith, *The making of a woman’s town*, ix.

⁵⁸ C. Harris, “Archival fieldwork”, *The Geographical Review*, 91 (2002) 328-334, 334.

thought of as a creative, three-way process, between the researcher, their ideas and the data. As Harris puts it:

On entering an archive one must have, I think, some fairly clear sense of where one is going. Otherwise it is virtually impossible to get under way. On the other hand, I think it is well to admit that one may not end up at the intended destination. Between the points of departure and arrival are the documents one has to consult, and archival scholarship at its best, it seems to me, is an ongoing, evolving interaction between the scholar and the voices of the past embedded in the documents.⁵⁹

Harris goes on to caution against two approaches: firstly of being consumed by the archives, and secondly of imposing ready-made ideas on the records found.

It has been easy to fall into both of these approaches. My first encounters with the archives relating to Dundee and jute, although useful for familiarising myself with the records available, left me feeling overwhelmed, with no clear sense of what it was I was looking for. More importantly, I did not know how to 'read' what I found. With these concerns, it was easy to be lured into the second approach - of reading copious amounts of theory and transferring it intact to the archive. While offering reassurance when confronted by a plethora of records, such an approach ultimately makes the actual archive material secondary and marginal to the research process. However, Harris provides us with a more pliable and flexible sense of archives and the research process, and it is this pliability and flexibility that I hope to have achieved through my work. Without doubt, the process of 'data collection' changed my initial research plans and ideas, and one of the frustrations and satisfactions of archival research is the necessary flexibility that archival research entails - of never knowing what the archive will produce and where this will lead your research. What

is presented here, as the final thesis, is therefore the product of a to-ing and fro-ing between the archives and theory over a four year period.

Research is a peculiarly personal encounter. It has concerned me at times that the archives can be used for many purposes and perhaps for any purpose, and I am aware that it is possible to go into the archives and mechanically pick and choose the 'evidence' to back up an argument. I have also been concerned about how my work fits in with and departs from existing scholarship. Some of these concerns are articulated by Wishart who suggests that selectivity and subjectivity permeate the writing of historical narratives; from the selection of facts to combining those facts into a story. Wishart's paper is derived from his own experiences of writing historical geography, and "understanding that no one else, even someone who had read exactly the same primary sources, would have produced the same narrative."⁶⁰ In other words, this thesis, like any other, is a partial and selective account - a particular reading of Dundee's industrial past.

My sense of theory and research is neatly glossed by Jonathon Culler, who notes that,

The nature of theory is to undo, through a contesting of premises and postulates, what you thought you knew, so the effects of theory are not predictable. You have not become master, but neither are you where you were before. You reflect on your reading in new ways. You have different

⁵⁹ *Ibid.*, 331.

⁶⁰ D. Wishart, "The selectivity of historical representation", *Journal of Historical Geography*, 23 (1997) 111-118. These ideas have been explored by a number of historians and historical geographers. See for example, H. White, *The content and the form: narrative, discourse and historical representation* (Baltimore: John Hopkins University, 1987).

questions to ask and a better sense of the implications of the questions you put to the works you read.⁶¹

Engaging with theory, as Culler articulates, has pushed me to ask new and different questions of the archives, and as a result, this thesis has developed in directions I had not expected. Although I will largely deal with theoretical and methodological issues as I work through the stories of the archives, I wish here to mention two principal influences on my research: first the work of Michel Foucault, and second the project of feminist historical geography. Harris suggests, it is the ‘approach’ taken that makes for a productive encounter with the archives. Following this, I use social theory as a process of recovery and recuperation to provoke new ways of thinking. Culler refers to this type of theory as offering “striking moves” that can be used in thinking through a range of different topics.⁶² And certainly the type of social theory that Foucault’s work is a part is “by no means ready-made and asks questions rather than giving easy answers.”⁶³

I use Foucault’s ideas of discourse and power/knowledge to explore a range of understandings and social constructions of working women in Dundee. The term discourse is now widely used within the social sciences and humanities and it has become something of a nebulous term. Discourse however can be defined in different ways and used for many different purposes. Here, I set out how I understand and use the term in this thesis.

⁶¹ J. Culler, *Literary theory, a short introduction* (Oxford: Oxford University Press, 1997) 17.

⁶² Culler, *Literary theory*, 7.

According to Green, discourse is “a coherent pattern of statements across a range of archives and sites,”⁶⁴ whereby meanings depend not only on one particular text or image, but on the meanings carried by a range of often seemingly unconnected texts.⁶⁵ The task of discursive archival research is therefore to find, what Foucault described as the:

relations between statements (even if the author is unaware of them; even if the statements do not have the same author; even if the authors were unaware of each other’s existence); relations between groups of statements thus established (even if these groups do not concern the same, or even adjacent fields; even if they do not possess the same formal level; even if they are not the locus of assignable exchanges); relations between statements and groups of statements and events of a quite different kind (technical, economic, political, social).⁶⁶

Following Foucault, I have tried to think about the relations between a wide range of archival statements, documents and collections, and explore how the ‘jute archive’ operates as a discursive battleground – or a site of struggle – over the negotiation of dominant meanings and representations of work, productive efficiency, and surveillance. This ‘discursive’ method enables us to understand how what was said in diverse locations fits into a textual network that has its own particular history and conditions of existence.⁶⁷ For historians, this reading of the archives has opened up entirely new areas and means of research. As Foucault comments:

A few years ago, historians were very proud to discover that they could write not only the history of battles, of kings and institutions, but also of the

⁶³ F. Driver, “Power, space and the body: a critical assessment of Foucault’s *Discipline and Punish*” *Environment and Planning, D 3* (1985) 425-446, 432.

⁶⁴ N. Green, *The spectacle of nature: landscape and bourgeois nature in nineteenth-century France* (Manchester: Manchester University Press, 1990) 3.

⁶⁵ G. Rose, *Visual methodologies: an introduction to the interpretation of visual materials* (London: Sage publications, 2001) 142-3

⁶⁶ M. Foucault, *The archaeology of knowledge* (London: Tavistock, 1972) 29

⁶⁷ M. Barrett, *The politics of truth, from Marx to Foucault* (California: Stanford University Press, 1991) 126.

economy; now they are all amazed because the shrewdest among them have learned that it was also possible to write the history of feelings, behaviour and the body. Soon, they will understand that the history of the West cannot be dissociated from the ways in which 'truth' is produced and produces its effects.⁶⁸

As Foucault suggests, what once appeared as natural and often invisible - a perceived point of innate truth - is now de-naturalised by tracing the discursive elements of construction and normalisation.

Many readings of discourse focus on the production of knowledge and truth, the location(s) from which knowledge and truth are derived and legitimated, and the ways in which they have been circulated, consumed and reproduced. In this thesis, as in historical research more generally, I have relied almost exclusively on the words, images and texts produced by the socially privileged and institutionally powerful. However, discourse is about more than formal and official documents, texts and images, and is never a free-floating construction. Derek Gregory insists that discourse is,

encased in apparatuses - in books and journals, in instruments and equipment, in interactions and procedures - which are produced and reproduced through interlocking networks of individuals and institutions, and their physicality, materiality and durability help to naturalize particular ways of being in and acting in the world.⁶⁹

However, as discourse analysis has been taken up by cultural geographers, a criticism levelled from both within and beyond the subdiscipline is that it deals only with meanings and representations which, as Young explains, was not Foucault's idea at all:

⁶⁸ M. Foucault, "Power and sex" in L. Kritzman, *Politics, philosophy, culture: interviews and other writings 1977-1984* (New York: Routledge, 1988) 110-124, 112.

A discourse, Foucault suggests, is primarily the way in which a knowledge is constituted as part of a specific practice whose knowledge is formed at the interface of language and the material world....Discourse is a border concept, a transcultural practice that crosses intellectual and physical boundaries, both because in practical terms knowledge in discourse will be part of everyday practices, and because material conditions will also operate on the conceptual formation of knowledge.⁷⁰

For Foucault, discourse is always a material, historical entity rather than an abstract textual thing. It is possible to find this idea of discourse in Foucault's work, but this emphasis on the materiality and physicality of discursive practices has been pressed forcefully in recent years by geographers. This reading of discourse is concerned with material, historical and geographical practices of knowledge production, with how discourse was materialized in particular spaces, and with the creation of specific subject positions. Concerned with this *dematerializing* of discourse, Chris Philo suggests we need to dissolve the materiality-discourse, reality-representational binary opposition, re-vision the relations between them, and explore how representations and materialities create and build upon one another.⁷¹ This materiality of discourse is a central theme throughout this thesis.

Discourses constitute ways of knowing and forms of knowledge, and determine what is seen as 'truth' at any one moment. Exploring the construction of discourse therefore requires an examination of the regimes of power/knowledge through which they are produced. The recursive relationship of power and knowledge - their

⁶⁹ D. Gregory, "(Post)colonialism and the production of nature", in N. Castree and B. Braun (eds.), *Social nature* (London: Sage, 2001) 125-150, 132.

⁷⁰ R. Young, *Postcolonialism: an historical introduction* (Oxford: Blackwell, 2001) 399.

⁷¹ C. Philo, "More words, more worlds: reflections on the 'cultural turn' and human geography", in I. Cook, D. Crouch, S. Naylor and J. Ryan, *Cultural turns/geographical turns* (Harlow: Pearson Education Limited, 2000) 26-53. Certainly this is an approach Philo has pursued in his own research on the asylum system.

conjoining as power/knowledge - is central to Foucault's *oeuvre*, and I want to say more here about the specific understandings of power-knowledge that encase this work.

For Foucault, power is something that is exercised rather than possessed and he therefore focuses on the *how* of power.⁷² As he explains:

I am not referring to Power - with a capital P - dominating and imposing its rationality upon the totality of the social body. In fact, there are power relations. They are multiple; they have different forms, they can play in family relations, or within an institution, or an administration ... It is a field of analysis and not at all a reference to any unique instance.⁷³

Power is therefore a relationship between individuals and groups that works in a capillary form. This is exemplified through the use of Bentham's panopticon, an eighteenth-century design of an ideal prison. In *Discipline and Punish* he described how it worked :

At the periphery, an annular building; at the centre, a tower; this tower is pierced with wide windows that open onto the inner side of the ring; the peripheric building is divided into cells, each of which extends the whole width of the building; they have two windows, one on the inside, corresponding to the windows of the tower; the other on the outside, allows the light to cross the dell from one end to the other. All that is needed, then, is to place a supervisor in a central tower, standing out precisely against the light, the small captives shadows in the cells of the periphery. They are like so many theatres in which each actor is alone, perfectly individualised and constantly visible.⁷⁴

From this very specific spatial layout of the panopticon, Foucault generated his theory of power which "has as its principle not so much in a person as in a certain distribution of bodies, surfaces, lights, gazes; in an arrangement whose internal

⁷² Barrett, *The politics of truth*, 136.

⁷³ M. Foucault, "Politics and reason" in Kritzman (ed.), *Michel Foucault*, 57-85, 68.

⁷⁴ Foucault, *Discipline and punish*, 200.

mechanism produce the relation in which individuals are caught up.”⁷⁵ Space was therefore “fundamental in any exercise of power”⁷⁶, and he made particular architectural sites and their spatial technologies central to his writings on disciplinary power and the constitution of the subject.

Foucault used ‘panopticism’ to capture – and in a way showcase – the idea that disciplinary power operates within and beyond the annular architecture of Bentham’s prison, and at a variety of different scales, from individual buildings to national territories.⁷⁷ He also re-worked the notion in his subsequent work on biopower. Foucault used the neologism ‘biopower’ to describe a “new power over life” that emerged in Europe between the seventeenth and nineteenth centuries⁷⁸, and had as its purpose the creation and maintenance of a strong, healthy and productive population. On Foucault’s account, biopower has ‘microphysical’ and ‘macrophysical’ dimensions. On the one hand, it “centred on the body as a machine: its disciplining, the optimisation of its capabilities, the extortion of its forces, the parallel increase of its usefulness and its docility, its integration into systems of efficient and economic controls.”⁷⁹ It was this bodily discipline that Bentham’s panopticon articulated so visibly . On the other hand, biopower,

⁷⁵ *Ibid.*, 202

⁷⁶ M. Foucault, “Space, knowledge and power” in P. Rabinow (ed.), *The Foucault reader* (London: Penguin, 1991) 239-256, 252

⁷⁷ M. Hannah, “Space and the structuring of disciplinary power: an interpretive review”, *Geografiska Annaler* 79 B (1997) 1-17, 3. In conclusion, Hannah suggests how class and gender have an impact on discipline and that “[f]uture research on disciplinary power in geography could fruitfully address their articulations, in order to clarify both how gender and class inflect disciplinary mechanisms and how disciplinary power operates in connection with other tools of class and gender oppression.”

⁷⁸ See D. Clayton, “Biopower” in R. Johnston, D. Gregory, G. Pratt and M. Watts (eds.), *The dictionary of human geography* (Oxford: Blackwell, 2000), 48.

⁷⁹ Foucault, *History of sexuality*, I, 139.

focused on the species-body, the body imbued with the mechanics of life and serving as the basis of the biological processes: propagation, births and mortality, the level of health, life expectancy and longevity, with all the conditions that can cause these to vary. Their supervision was effected through an entire series of interventions and *regulatory control: a biopolitics of the population*.⁸⁰

We can see from this that Foucault's conceptualisation of disciplinary power and biopower were underpinned by the same general understanding of power as a capillary mechanism, working to produce disciplined individuals and normalised populations. He also showed how these different forms and modalities of power were bound up with the production of particular objects, knowledges and discussion. For example, the examination, clinical medicine and psychiatry; the prisoner; delinquency and criminology. Foucault's basic point was that "[i]t is not possible for power to be exercised without knowledge, it is impossible for knowledge not to engender power."⁸¹ Foucault grafted the word knowledge onto power so that they are understood in conjunction with and through one another:

We should admit ... that power produces knowledge ... that power and knowledge directly imply one another; that there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations.⁸²

In this thesis I try to work these Foucauldian postulates through the imbrications of gender and space. Feminists are generally concerned to analyse the power relations in which women are caught. The second-wave of feminism that emerged in the 1960s focused upon the two inter-related systems of capitalism and patriarchy to

⁸⁰ *Ibid.*

⁸¹ M. Foucault, "Prison Talk", in C. Gordon (ed.), *Power/knowledge: selected interviews and other writings 1972-1977* (New York: Pantheon, 1988) 37-54, 52.

⁸² Foucault, *Discipline and punish*, 27.

understand women's subordination.⁸³ However, Foucault's concept of discourse, and analysis of power-knowledge, have undermined these understandings. As M. E. Bailey suggests, Foucault has freed feminists "to pursue specific, local struggles without justifying these with reference to an entirely male system of power and consequent oppositional female powerlessness."⁸⁴ Feminist historical geography is certainly one area where this conceptual shift has been keenly felt. In 1988, Rose and Ogborn called for the development of an explicitly feminist historical geography.⁸⁵ This paper defined feminist historical geography through ideas of patriarchy. However more recently, there has been a move away from these debates to explore more closely how gender differences are produced. In the latest reappraisal of feminist historical geography, Karen Morin and Lawrence Berg show that the most recent work within feminist historical geography is concerned with the production of gendered identities.⁸⁶ It is here that my work fits in to the current trajectory of feminist historical geography and I now focus on the discursive archival approach I pursue to explore the production of gendered identities in Dundee.

The discursive archival approach taken in this thesis is designed to probe the masculinist forms and norms of knowledge that have constructed women as marginal and inferior. However, it should be stressed at the outset that Foucault's ideas are not

⁸³ For a good review of these positions see for example S. Walby, *Patriarchy at work* (Cambridge: Polity Press, 1986).

⁸⁴ M. E. Bailey, "Foucauldian feminism: contesting bodies, sexuality and identity" in C. Ramazanoglu (ed.), *Up against Foucault: explorations of some tensions between Foucault and feminism* (London: Routledge, 1993) 99-122, 119.

⁸⁵ G. Rose and M. Ogborn "Feminism and historical geography", *Journal of Historical Geography*, 14 (1988) 405-409.

⁸⁶ K. Morin and L. Berg, "Emplacing current trends in feminist historical geography", *Gender, Place and Culture* 6 (1999) 311-330.

beyond criticism. Feminists have been particularly critical of his seeming 'rejection' of subjectivity. Foucault's fundamental rethink of power places the subject as constitutive of discourse and power/knowledge relations. Foucault "admits of no rational, unified human being, nor class, nor gendered subject which is the locus or source of the expression of identity." Instead, "membership in a category, as a particular type of subject, is regarded as the effect of devices of categorisation; thus identity is seen as contingent, provisional, achieved not given."⁸⁷ Foucault's insistence that power produces reality and constitutes subjects, has been read by many to entail a loss of agency. Giddens for example, sees Foucault's subjects as dupes, trapped by a power that they are never able to resist. Foucault fails to acknowledge that "human beings are always and everywhere knowledgeable human agents, though acting within historically specific bands of the unacknowledged conditions and unanticipated consequences of their acts."⁸⁸ In Giddens' reading of Foucault, humans can only be seen as dupes. He however rejects such a notion and stresses their agency. However, it is feminist scholars who have produced some of the most engaging and nuanced critiques of Foucault's ideas about the subject and power. Caroline Ramazonoglu usefully remarks that "[b]ecause feminism, until recently, has developed largely outside poststructuralist and postmodernist thought, and because Foucault largely ignored feminism there has been very little engagement between Foucault's ideas and those of English-speaking feminism."⁸⁹ As such any feminist wishing to use his ideas has the onerous task of having to use their own

⁸⁷ S. Clegg, *Frameworks of power* (London: Sage Publications, 1989).

⁸⁸ A. Giddens, *A contemporary critique of historical materialism* (London: MacMillan, 1981) 158-161.

⁸⁹ C. Ramzonoglu, "Introduction" in Ramazonoglu, *Up against Foucault*, 1-25, 3.

imaginings to “fill gaps left by Foucault.”⁹⁰ Maureen McNeil uses the analogy of ‘dancing’ to describe the sometimes frictional and sometimes smooth relationship between feminism and Foucault.

The vexed nature of this relationship comes, in part, from issues of agency and subjectivity. A key tenet of feminist practice has been to question various humanist ‘universals’ that have worked to repress women, and feminist historians have been good at demonstrating the masculinisation of knowledge and the exclusion of women from knowledge-making processes. Foucault was centrally concerned with how knowledge is constructed and given legitimacy, but this anti-humanism is at odds with feminist projects that work to end the oppression of women by asserting the category of ‘woman’ and women’s way of knowing. Feminists have used the category ‘women’ in order to invert the many dualities through which women have been understood – especially by men. However, with humanism cast aside (ie with Foucault’s anti-humanism), there can be no authentic female voice or standpoint. As such, feminist theorists such as Bidy Martin have argued,

If we fail now to assert the category woman from our own shifting and open-ended points of view, our oppression may easily be lost among the pluralities of new theories of ideology and power. There is the danger that Foucault’s challenges to traditional categories if taken to their ‘logical’ conclusion, if made into imperatives rather than left as hypotheses and/or methodological provocations, could make the question of women’s oppression absolute.⁹¹

⁹⁰ Bailey, “Foucauldian feminism”, 118

⁹¹ B. Martin, “Feminism, criticism, and Foucault” in I. Diamond and L. Quinby (eds). *Feminism and Foucault: reflections on resistance* (Boston: Northeastern University Press, 1988) 3-19, 17.

Such concerns over a perceived free fall into plurality and the impossibility of adopting any political position resonates throughout a broader theoretical field.⁹²

Many of these issues are indicative of the broader theoretical wranglings within the feminist camp. The dangers of working through essentialist notions of a 'female' subject have been highlighted by numerous feminists working on issues of class, race, sexuality, disability, and so forth. The 'exposure' of the early feminist movement's hidden positionality of Western, white and middle-class has enabled feminist scholars to move away from an androcentric humanism and towards more ambivalent theoretical positions. And theorists such as Judith Butler, for example, have tried to develop a post-humanist feminism,⁹³ that move forward Foucault's ideas on the constitution of the subject. As Jane Sawicki explains, "[e]ach of their positions can be read in part as a response – whether indirect or direct – to feminists' reluctance to give up their claims to innocent origins and a unified identity as a basis for epistemological, moral, and political struggles."⁹⁴

In this thesis, I explore how working women were constructed through discourse. I use Foucault's ideas to show how working women were made visible and scrutinized. However, as feminists have done, I use the term discourse in a perhaps

⁹² It is a concern of feminist and others that adhering to Foucault's analysis of power/knowledge and discourse will lead to research sinking into "relativism, irrelevance, antiquarianism, and political nihilism through the rejection of world views that no longer convince and compel". See P. O'Brien, "Michel Foucault's history of culture", in L. Hunt (ed.), *The new cultural history* (University of California Press, California, 1989). In geography, David Harvey is one of the most notorious critics of postmodernism and poststructuralism, especially the perceived loss of a political agenda. See D. Harvey, *The condition of postmodernity*, (Oxford: Basil Blackwell, 1989) 52.

⁹³ J. Butler, *Gender trouble: feminism and the subversion of identity* (London: Routledge, 1990).

more flexible way than Foucault, to highlight the possibilities of negotiating with these discursive structures. I work with an understanding that working women could actively negotiate masculine discourses, could construct positions for themselves using discursive constructs, and could create their own discourses. I believe this gives us a more flexible understanding of women in history - not a history where women suddenly become 'free' and empowered, but neither a history where women are solely victims of the structures of capitalism and patriarchy. Instead, by using the notion of discourse and by exploring the power/knowledge relations in their construction, I hope to contribute to a feminist historical geography that explores more closely how gender identities are constructed and contested.

Parameters of Study

This study focuses upon a particular industry within a particular city and time period. But most importantly, it focuses upon a particular population - working women. My emphasis is on exploring how and where knowledge about Dundee's working women was produced. As such, the principle purpose of my archival work has been to gather material of a particularly local nature. In so doing, I have drawn upon the records of a number of prominent institutions and organizations in late nineteenth and early twentieth century Dundee. Of course, as a study of the women who worked in the jute industry, locating the records of various jute companies has been a priority. The majority of these are stored at Dundee University Archives (DUA), and reconstructing the jute production process from these often sketchy sources has been

⁹⁴ J. Sawicki, "Identity politics and sexual freedom: Foucault and feminism" in Diamond and Quinby, *Feminism and Foucault*, 177-191, 178.

central. Away from the formal narrative of the jute companies, trade union records, primarily those of the DDJFWU, kept in the Dundee City Archives (DCA), have been used to explore workplace resistance. In addition to records pertaining to the jute works, I have explored how working women were understood and treated beyond the workplace, and by both state and philanthropic organisations. As such, I turned to two major blocks of archives. Chapter 6 focuses almost exclusively on the records of the DSU and chapter 7 focuses on the city's Medical Officer of Health (MOH) reports. The records of the DSU (both published and unpublished) are kept predominantly in the DCA and the reports by Dundee's MOH are kept in the Local Studies Department (LSD) of Dundee's Central Library. Both of these sets of records are complete and restricting my research to these sets of sources has enabled me to produce a more in-depth study, that focuses on the very processes through which such organisations worked and the technologies through which their knowledges were produced. These records have been complemented by an extensive range of contemporary journals, newspapers and photographs. An important addition to these archives has been the use of existing oral histories. These oral histories were carried out by the DOHP in the mid 1980s (and now kept in the LSD), Eleanor Gordon (for her book *Women and the trade union movement in Scotland*) and Billy Kay (for his *Odyssey* book). Up to a point, these oral histories have enabled me to probe practices of resistance and refusal more thoroughly.

My research roughly spans a period of sixty years from 1870 to 1930. While these temporal limits are admittedly rather arbitrary, my main concern has been to capture

a period in which a myriad of different and competing processes were taking place. Because I am studying the processes through which working women were constructed and known, I have not been restricted by tight temporal boundaries. As such, the thesis does not have a particular point of opening and a particular point of closing. Instead, roughly taken, the period 1870-1930 represents a period of change in Dundee. 1870 was some forty years after jute was first spun in Dundee. However, in the proceeding thirty years, Dundee was to reach its peak of jute imports as Calcutta became resurgent as a jute manufacturer. These changes were reflected in employment terms as numbers employed in Dundee's jute industry peaked around the turn of the century. Therefore, at the end of the nineteenth and beginning of the twentieth centuries, Dundee found itself in a precarious situation and had to adapt to this competition.

This same period was one in which working women were increasingly discussed by a diverse range of institutions and organisations within the city, and came to prominence in social commentary. Whether due to their employment, earning power, leisure time, or relation to home and family, working women were constantly scrutinised. This thesis therefore tracks both the changes in the fortunes of jute and the commentary on working women in Dundee.

Chapter Outline

This thesis does not proceed in a linear fashion. Rather, it explores a series of locations, or what can be seen as a topography of the city for working women. The

thesis is based around the workplace and home. However, rather than splitting the thesis into two parts, and thereby reinforcing the 'opposing' nature of these two sites, it instead maneuvers more slowly between work and home, highlighting the very close links between the two.

Focusing on a range of texts, Chapter 1 provides a re-reading of Dundee's industrial landscape. I attempt to interrupt and subvert the imposing discourse of Dundee's industrial landscape and show the gendered and classed practices through which they were produced. Moving from this city-wide scale, Chapter 2 explores the factory system and its geographies. I draw special attention to the external design and internal layout of the mills and factories and suggest that they were sites not only of production, but also sites for the surveillance and discipline of workers. Chapter 3 extends this discussion by focusing upon the micro-geographies of production, power and knowledge. I trace the gendered movements of people and knowledge and argue that multiple and contrasting workplace geographies existed in Dundee. As chapters 2 and 3 draw on the official narrative of the factory system and its strategies for production and discipline, chapter 4 explores workplace resistance. Drawing upon a range of sources from oral histories to trade union records, I explore the processes and devices through which women's strategies of protest and refusal were forged. I suggest that geography is central to gaining a fuller understanding of the processes and manifestations of resistance. Moving beyond the confines of the workplace, chapter 5 focuses specifically on the construction of working women as a 'problematic' population. I show how women were identified as one of three figures:

the weaver, the spinner or the married working woman. I argue that this categorising was central to the processes of stereotyping that surrounded women, the jute industry, and their place in Dundee's economy and society. Finally, chapters 6 and 7 highlight the landscape of reform that converged upon working women. House and home are the focus of chapter 6. Focusing on the work of the DSU, I suggest that the specificities of the philanthropic project of reform were constructed around the city's industrial conditions and the figure of the working woman. Chapter 7 extends notions of home further. It explores the attempt to enumerate the infant mortality rate in Dundee, and the diversity of techniques and interventions that were aimed at reducing it. I argue that in Dundee, these interventions were specifically focused upon the city's large proportion of working women, and most especially upon the married working woman.

Chapter 1

(De)Constructing Dundee's Industrial Landscape

The Supplement to the Dundee Edition of the *People's Journal*, 25 June 1887, contains a panoramic sketch of Dundee and, quoting Queen Victoria from her diary 'Our Life in the Highlands' (1844), remarks: "Dundee is a very large place, and the port is large and open; the situation of the town is very fine."¹ We are told that the sketch "affords an idea of the natural beauties of the site. Spreading along the northern banks of the Tay, and climbing up the slopes of the Law Hill in the centre, Balgay to the west, and Craigie to the east, few cities have a finer or more healthful location." Taken from the Fife side of the River Tay, and with the Law Hill providing the central axis, the panoramic sketch provided a pictorial background to an article that reflected on the city's progress over the previous fifty years.² The sketch was aligned with the river bank, showing the busy harbour traffic, and beyond the river, the "second town in Scotland in Commercial importance"³ with its "numerous chimney stalks ... the majority of large dimensions, [that] indicate how busy are its manufacturers." The article tried to capture the city's progress and achievement through capturing its landscape - a material landscape that is represented in a written and visual form.

¹ Supplement to the Dundee Edition of the *People's Journal*, June 25 1887.

² The article described this progress as "most rapid" and continued: "When Queen Victoria came to the throne the population of Dundee numbered barely 58,000 whereas now, including the suburbs of Broughty Ferry and Newport, it numbers 170,000. The shipping belonging to the port in 1837 measured 40,000 tons; now it measures 116,000 tons. In 1837 but one line of railway ran out of the town; now five lines radiate from it. Fifty years ago the harbour accommodation was not half its present dimensions. Whilst the town has tripled in size during Her Majesty's reign, in wealth it has much more than tripled; and evidences of this are had in the spacious streets, commodious hospitals, and other public buildings of noble proportions which characterise it. In recent years the centre of the town has been much embellished by the handsome new thoroughfares which have been sent on this work." *Ibid.*

³ Quoted in the same article from the *Encyclopedia Britannica. Ibid.*

The article posited a particular image of Dundee and contributed to a wider discourse on the city's progress and place in national and imperial contexts.

This chapter probes such images of Dundee's industrial landscape, and explores how they invested Dundee with masculinist meaning. I will use the expanded meaning of the term text to refer not only to the written page but also to sketches, photographs and lithographs, and to both material landscapes and social institutions.⁴ This broadened interpretation therefore refers to both immaterial representations and to very real materialities.⁵ I explore how texts were forged through formations of power/knowledge that had specific class and gender inflections. Unpacking Dundee's landscape in this way helps us to see how the city's male middle-class social and industrial elite fashioned and reaffirmed its identity through the mobilisation of a particular set of representational tactics and tropes, and the places and spaces with which they were linked.⁶

I will start at the macro-scale of the city, with an exploration of the *Dundee Year Book (DYB)*, and then move to a more micro-scale investigation of a number of contemporary journals that discussed the planning and operation of specific jute works. I also try to show how these different texts appealed and contributed to wider discourses of Empire.

⁴ See T. Barnes and J. Duncan, "Introduction, Writing Worlds" in T. Barnes and J. Duncan (eds.), *Writing Worlds: Discourse, text and metaphor in the representation of landscape* (London: Routledge, 1992) 1-17.

⁵ As suggested in the introduction to this thesis, words such as text and discourse are not purely representational terms, and they are not free-floating constructions. Instead, they refer to grounded social practices and analyses. See J. Duncan and N. Duncan, "Reconceptualizing the idea of culture in geography: a reply to Don Mitchell", *Transactions of the Institute of British Geographers*, NS 21 (1996) 576-9.

⁶ See J. Duncan, and N. Duncan, "The aestheticization of the politics of landscape preservation", *Annals of the Association of American Geographers* 91 (1991) 387-409. In this article, Duncan

The Dundee Year Book - Comprehending the City, its People and Places

It has been suggested that it would be of service and may come to be of value for future reference, if the large amount of information given in the *Dundee Advertiser* at the end of each year respecting the Events, Linen and Jute Trade, Direct Importations from Calcutta and Chittagong, Imports of Flax, Shipping, Shipbuilding, &c., were collected and published in a handy form. Hence this little volume. The Statistical Tables have all either been taken from official sources, or directly prepared for us by the officers of the various public boards, to whom we have to express our acknowledgement for their prompt and obliging assistance.⁷

The *DYB* was first published in 1879 by John Leng and Co. and provided, in part, a compilation of select articles that had appeared in Dundee's daily newspaper, the *Dundee Advertiser*, over the course of a year.⁸ As a collection of "Facts and Figures" for the city, I draw upon it here as a guide to Dundee's modernity at the end of the nineteenth and beginning of the twentieth centuries. More specifically, I am interested in the *DYB*'s role in constituting a discourse of modernity, and the processes and contexts of its production. Driver has usefully noted that, it is "all too easy to use the texts of nineteenth-century social science uncritically, as a more-or-less transparent window upon the nineteenth century city", and that, "[a]pproaching these texts critically is less a matter of identifying the bias of middle-class observers, than it is of recognising their place as participants in the

and Duncan focus upon the landscape of Bedford, New York and argue how its construction reaffirmed elite identities.

⁷ "Note", *DYB* (for 1878) n.p. This was the first edition of the journal.

⁸ John Leng and Co. were responsible for the publication of the *Dundee Advertiser* (1801), the *People's Journal* (1858), the *People's Friend* (1869) and the *Evening Telegraph* (1877). John Leng himself became the city's Liberal Party Member of Parliament in 1890 and was later given a knighthood. Leng was part of what Joyce refers to as an 'elite-created' middle-class - men of business and industry, of good education and often of liberal politics, whose influence was felt through membership of city institutions, the local press and often through the local parliamentary seat. They had as Joyce continues "a new awareness of the social responsibility of the industrious gentleman, and a mightily enlarged ambition for knowledge itself as - on the form of culture or cultivation - the key to society's and the person's ills". P. Joyce, *Democratic subjects: The self and the social in nineteenth-century England* (Cambridge: Cambridge University Press, 1994) 165. Certainly John Leng through his publishing and political endeavours asserted Liberal ideals within Dundee.

reconstruction of urban space.”⁹ Although the *DYB* was not, strictly speaking, a social scientific publication, approaching it in the way that Driver suggests can be immensely productive. As an annual survey of the city, it can be thought of as a form of ‘social imaginary’¹⁰ and ‘governmentality’¹¹, a discursive vehicle for the production and dissemination of partial knowledges and truths. It also aimed to actively contribute to the city’s ‘progress’ and thus provide Dundee with its own sense of modernity, as stipulated in the preface to *The Dundee Advertiser, 1801-1901: A Centenary Memoir* which reads:

The marvellous progress of the city may fairly be claimed to have been assisted by the press. The introduction of popular municipal representation; the extension of Dundee’s great textile industry; the municipal control of water, gas, and electric supplies, and tramway communications; the building of the Tay Bridge; the widening of streets in the centre of the city; the acquisition of several public parks; the extensions of the docks, and many other schemes, have all been fostered by the *Dundee Advertiser*, many of them, indeed, first suggested in its columns.¹²

Through suggestion and support of various city improvements, *the Dundee Advertiser* and the *DYB* were constructed as purveyors of progress and modernity. The construction of dominant images of Dundee can therefore be probed through a close reading of their articles.

⁹ F. Driver, “Moral geographies: social science and the urban environment in mid-nineteenth century England”, *Transactions of the Institute of British Geographers* NS 13 (1988) 275-287, 276.

¹⁰ Joyce refers to social imaginary as the forms through which ‘society’ has been understood, and the ways in which these forms have been produced. The *DYB* can be read as one such form in Dundee. See Joyce, *Democratic subjects*, 4-5.

¹¹ In Foucault’s own words governmentality refers to “the ensemble formed by institutions, procedures, analyses and reflections, the calculations and tactics that allow the exercise of this very specific albeit complex form of power, which has as its target population, as its principle form of knowledge political economy, and has its essential technical means apparatuses of security [modern institutions for the improvement and administration of life].” M. Foucault, “Governmentality” in G. Burchell, C. Gordon, and P. Miller (eds.), *The Foucault effect: studies in governmentality* (London: Harvester, 1991) 98-120, 102. As a forum for liberal views, the *DYB* reinforced and reproduced State knowledges and concerns through the specificities of the city. In this Foucauldian sense, it acted as forum through which governmentality was made intelligible at the local scale.

The *DYB* provided a review of the year's local trade and local events, and published an array of statistics regarding population, mortality, water consumption, exports, imports and rainfall. However, it was concerned primarily with the city's industry and commerce, and it paid special attention to imports and exports, the money market, public corporations, agriculture, and other economic matters. As the publication became established, it grew in size and scope, carrying articles on events beyond Dundee and devoting sections to "Domestic Affairs" and "Foreign Affairs". By 1881, longer articles on specific places and events had started to appear, "[i]n order that everything noteworthy connected with the town may be duly recorded, and the volume thus rendered a complete and reliable history of the year's occurrences".¹³ And by 1899 it was claimed that the volume's 204 pages supplied "information upon every topic of interest and value to Dundonians."¹⁴

I am interested in how the *DYB* set the city up as an object of display and made it readable at two distinct scales. First, the volume operated at a macro-scale, through reviews, overviews and the medium of statistics. The array of statistical information presented in the *DYB* grew steadily from 1879 onwards, and as new statistics were added, old statistical categories were broken down and augmented. Its monitoring of population growth gives us a good sense of this. The first edition (1879) reported on the population of the city and the natural increase over

¹² A. H. Millar, *The Dundee Advertiser, 1801-1901: A Centenary Memoir* (Dundee: John Leng and Co., 1991) n.p. As many of the articles in the *DYB* were taken from the *Dundee Advertiser*, the same project of modernity could be applied to the publication of the *DYB*.

¹³ "Note", *DYB* (for 1883) n.p.

¹⁴ "Note", *DYB* (for 1899) n.p.

a 10 year period,¹⁵ whereas the final edition (1916) did so by month and included statistics regarding births, marriages and deaths. In addition, by 1916, births were split up by sex and stipulated as either legitimate or illegitimate, and deaths were similarly split up by sex and stipulated by age.¹⁶ The collation and use of such social statistics, and their significance to the ideology of improvement in Victorian Britain, has been researched by Cullen. But his and other studies do not explore how statistics travelled beyond government and local authority statistical departments, statistical societies and philanthropic investigators to a wider readership.¹⁷ The *DYB* was one means by which statistics entered urban consciousness and reached a broader audience - that of the middle-class reading public. The statistics that made their way into the *DYB* provided a still-life of the city for each year, and through the process of comparing editions, demonstrated how Dundee had changed over time. The volume captured the city at a glance and particular instance; it placed the reader at a comfortable distance from which, in the words of Michel de Certeau, "the vast mass freezes under our gaze."¹⁸ The city's complexity was transformed into a finite number of isolatable elements, and turned into a crystal clear text.¹⁹

¹⁵ "Note", *DYB* (for 1878) n.p.

¹⁶ "Note", *DYB* (for 1916) n.p.

¹⁷ M. Cullen, *The statistical movement in early Victorian Britain: the foundations of empirical social research* (Sussex: Harvester Press, 1975).

¹⁸ M. de Certeau, "Practices of Space" in M. Blonsky (ed.), *On signs*, (Balltimore: Johns Hopkins University Press, 1985) 120-130

¹⁹ Here I am drawing upon the words and ideas of de Certeau. His analogy is taken from the experience of climbing the former World Trade Centre in Manhattan. As he puts it, "To be lifted to the summit of the World Trade Center is to be carried away by the city's hold. One's body is no longer criss-crossed by the streets that bind and re-bind it following some law of their own; it is not possessed - either as user or used - by the sounds of all its many contrasts or by the frantic New York traffic". *Ibid.*, 122-23. This provides a useful analogy to the processes and effects of the *DYB*. The *DYB* aimed to achieve a 'mastery' of the city, capturing it in its encompassing gaze.

But second, the *DYB* also took the reader down into the city itself, and reported at a more micro-scale upon particular places within it. The volume explored and represented more intimate and intricate geographies. As late Victorian provincial newspapers began to shift their focus away from national news to more local news,²⁰ the *DYB* began to provide some very localised accounts of the city's multiple urban topographies and actors that were drawn to the *Dundee Advertiser's* record of daily life and social dynamics in the city. All urbanites became the focus of its attention: Dundee's public men (1892), children (1896), school children (1905) and juveniles (1900), the poor (1888) and working poor (1903), workers (1905), working girls (1909), working women (1893) and mill and factory workers (1901, 1903). Articles on these and other topics created certain 'groups' as subjects of enquiry and objects of concern. And it was by reporting on this array of groups, from 'public men' to 'the poor', that the *DYB* played an important role in the representation and juxtaposition of 'high' and 'low' life in the city.

This eclectic range of journalistic subjects was matched by the array of reporters. The *DYB* gave voice to various reports, talks, meetings, research findings and so on. However, as Croll notes, local newspapers like the *Dundee Advertiser* were using a new type of journalist:

From the 1850s newspapers editors had become more adept at gathering local information as enthusiastic amateur contributors were joined by a new breed of journalist, the professional local reporter. The obligatory reports of parliamentary affairs and trade news were surrounded by columns dealing with 'local intelligence' in an in-depth manner.²¹

²⁰ A. Croll, "Naming and shaming in late Victorian and Edwardian Britain", *History Today*, 47 (1997) 3-5. Croll suggests that the provincial paper had, until the end of the nineteenth, primarily been a vehicle for national and international news. However, at this time, the local paper came to occupy an increasingly important position within the cultural life of British towns and cities.

²¹ Croll, "Naming and shaming", 3.

This new breed of investigative journalist included “a lady contributor” or “a special lady commissioner”, demonstrating how middle-class women had taken on a new role in the public arena, even though its journalism remained very much a masculine forum, with the reporter only identified when she was female. It was stipulated at the start of an article whether it was written by a woman - a novelty it was implied, to which the reader’s attention should be drawn. The marginal, if privileged, position of middle-class women journalists was also highlighted by virtue of the fact that women were rendered, for the most part, as objects of investigation.

In addition to depicting specific groups, the *DYB* skirted around the city, providing a glimpse of its multifarious sites and situations. New places of learning and recreation, for example, the University College (1882), the Dundee Technical Institute (1887), the Albert Institute (1890), Public Gymnasium (1891), the Young Women’s Christian Association (1888) and Lochee Park (1890), were a common feature of discussion. So were sites that highlighted “Dundee’s Development” and “Municipal Progress”²², for example, the New Sick Hospital for Dundee Poor (1891), the Lunatic Asylum (1903), the Caird Cancer Hospital (1906), the Dundee Rescue Home (1883) and various other public institutions.²³

Lastly and by no means least, the *DYB* published ‘special reports’ on the more hidden spaces of the city. For example, the 1888 edition carried thirteen articles on the question of “How the Poor Live” that sought to throw “vivid light upon the

²² The *DYB* (for 1891) carried an article entitled “Dundee’s development - interesting narrative of municipal progress”, 123.

struggle for existence in some of its saddest forms.”²⁴ Through detailed descriptions and conversations with ‘the poor’, these and other articles represented the poor as a ‘race apart’, and claimed to provide very detailed ‘evidence’ that let the facts ‘speak for themselves’. In one article on ‘Single Women in Single Rooms’, the reporter gives an account of a series of homes visited and suggests that “the reader judge to which of the classes mentioned it belongs.”²⁵ Such articles provided the ‘facts’ from which the reader should draw their own conclusions, but conclusions that were heavily shaped by the nature of the investigation.

Readers could experience these different places without ever having to enter them, and could become acquainted with the types of people living in them without needing ‘first hand’ experience. In this way, the reader was able to become a voyeur across the urban landscape, seeing all without seeing anything. As a result of the increased concern with ‘the local’ and, along the lines of other provincial newspapers and publications, the *DYB* became a piece of civilising technology which prescribed the norms of urban living.²⁶

Yet despite the *DYB*’s exploration of these varied and often ‘hidden’ sites and spaces, it was the jute industry that was of central concern:

Day by day and week by week the subject of jute figures very largely in these columns, especially in those devoted to commerce, and rightly so where so many of us are directly associated in its manufacture, and so many more indirectly dependent on the prosperity of its trade.²⁷

²³ These articles appeared in the *DYB* in year in which they were established, indicating the up-to-date and accurate record the book purported to provide.

²⁴ “Note”, *DYB* (for 1888) n.p.

²⁵ “How the poor live”, *DYB* (for 1888) 113.

²⁶ See Croll, “Naming and shaming”. This is discussed in more detail later.

²⁷ “The cultivation of jute”, *DYB* (for 1899) 178.

There were daily and weekly reports and statistics on prices, imports, exports, the number of jute bearing vessels and so forth, that exemplified the condition of the city's staple industry. In addition, the *DYB* carried detailed articles on the jute mills and their women workers. In 1893, the *DYB* carried "principal passages" from a report into the jute industry carried out by Miss Margaret H. Irwin, a "Lady Assistant Commissioner" appointed by the Royal Commission on Labour to inquire into "the condition of work of various Scottish industries." The article was followed by a commentary on the report's findings which read:

The subject of women's work and wages has been and will be interesting, and it is only when one begins to make inquiries that one realises the wide field which of late years in every direction has been opened up. Fifty years ago a woman's sphere was bound generally by the narrow limits of her own fireside, but now all is changed, and her sphere has "widened with the process of the sun." In an industrial community such as ours, by far the largest portion of working women are to be found in the mills and factories.²⁸

Reports were couched in the language of Victorian social commentary and, as both of these articles show, the voices of the workers are seldom heard. Investigations of workers also extended beyond the factories and mills to consider "Their Social Conditions".²⁹ Judgement was passed on housing conditions, recreational pursuits, social habits, and so on. This aimed to provide the reader with a more holistic view of the workers who sustained the city's staple industry.

However, getting to grips with the jute industry in Dundee was just one side to the jute story. For instance, the *DYB* for 1902 read:

²⁸ Lady Commissioner, "Women's work and wages in Dundee" *DYB* (for 1893) 175.

²⁹ "Dundee's mill and factory workers - their social conditions", *DYB* (for 1901) 201-215.

Nor is the work [of the DYB] important from a parochial point of view. Articles on Domestic, Colonial, and Foreign Affairs give the Year Book an imperial and international outlook and significance.³⁰

The *DYB* gave the city, and particularly its jute industry, a national, international and imperial reach. Attention was paid to the Calcutta side of the industry, with articles on the cultivation of jute (1899), Calcutta jute factories (1884), and jute mills (1887; 1895), comparative articles on the industry in both cities (1888), and ones that explored continental competition in Germany (1885; 1895), and factory life in America, Spain and France (1895). In 1895, the proprietor of the *DYB*, John Leng, visited Calcutta and produced a set of 'Letters from India and Ceylon',³¹ many of which were reproduced in both the *Dundee Advertiser* and *DYB*. Eurocentric in tone, Leng expressed surprise "at the palatial nature of the Indian mills, all, with two or three exceptions, erected on the shed system, and situated in spacious compounds"³² and he constructed the native as 'other' to the British and European colonialist.

As a respected Member of Parliament and newspaper proprietor, Leng's letters were received as a truthful account of the Calcutta industry. His 'Letters' were further legitimised in 1896, when he was invited to give an address to Dundee's Chamber of Commerce. "In my published letters", he noted, "I have endeavoured to describe as faithfully as possible what came under my observation, and to record as I received them the statements and opinions of men whose knowledge, experience, and character entitle their views to the greatest confidence and respect."³³ As a classic trope of colonial discourse, Leng offered a faithful

³⁰ "Note" *DYB* (for 1902) n.p.

³¹ J. Leng, *Letters from India and Ceylon* (Dundee: John Leng and Co, 1896) n.p.

³² *Ibid.* n.p.

³³ "The Indian jute industry, address by Sir John Leng", *DYB* (for 1896) 91.

eyewitness and personal account of what 'was'. In the preface to his 'Letters', he wrote of the assistance he had received in this endeavour:

I desire here to acknowledge my obligations to my fellow-traveller, Provost Stewart, of Monifieth; to Mr G.N. Nairn, President of the Indian Jute Manufacturers Association; and Mr Tremearne, the able editor of *Capital*, for their special assistance and officials who gave me facilities and contributed information utilised in these hastily-written pages.³⁴

These acknowledgements demonstrate how Leng reproduced the official narrative of the Calcutta industry. 'Native' views of the Calcutta industry were not treated with the same "confidence and respect" as the ones that Leng solicited from British capitalists operating there.³⁵

Alert to constant comparisons with Dundee, Leng was impressed by the buildings he found in Calcutta. Taking the reader on an imaginative journey through the mills he described what he encountered:

Entering a mill compound, you are first of all salaamed by the native dirwans or gatekeepers. These are frequently Mohomedans, with whom the vigorous exercise of authority seems more natural than to the mild and pliant Bengali. This is called for by the tendency to picking and stealing small things on the part of the natives, they have often to be searched as they leave the works. The native is said not to consider stealing a sin unless it is detected.³⁶

And in another instance:

All these differences are added to by the continued presence of dark-skinned Bengalis and other native tribes, with some educated and complaisant Baboos, and some masterful and contemptuous, but to the British, respectful Mahomedans. At first every sight seems strange, and it takes sometime for them to become perfectly familiar.³⁷

Again in comparison with Dundee, Leng stressed the passivity of Indian workers, their apparent docility and amenability, writing "[t]here are no better workers in

³⁴ Leng, *Letters*, n.p.

³⁵ The only native we hear from is Mr Ashutose Ray, Deputy-Chairman of the Municipality of Titaghur, described by Leng as "a native of superior intelligence" *Ibid.*, 95.

³⁶ *Ibid.*, 50.

the world than those in the Indian jute mills. A paternal despotism suits them exactly.”³⁸ The articles constructed the Calcutta works and workers as objects of intrigue and fascination.

Through Leng’s ‘Letters’, the *DYB* displayed an acute awareness of the city’s position in historical and geographical terms. Dundee was presented as a modern industrial city, but concerns were raised over its dependence on jute and the problems that this had brought.

The *DYB* was particularly proud of what it had achieved and modestly remarked that “[i]t is worthy of note that Dundee alone among Scottish cities has published such a useful record of civic life.”³⁹ As a useful record of civic life, it saw itself as a guardian of knowledge and an important provider of factual information. Here, I have been concerned with how the *DYB* provided an archive that posited and nurtured a new middle-class reading public which saw the city in particular ways. In 1900, the *DYB* stated:

The fact that the early volumes of the book are now eagerly sought after shows that the work is highly appreciated. To the Merchant, the Manufacturer, and the Trader of to-day, these twenty three volumes must be of great utility at present.⁴⁰

Although there are no remaining details on the circulation of the *DYB*, it is possible to infer what David Livingstone has called a ‘geography of reading’ from the above comment. It was probably members of Dundee’s middle-class business and social elites who would have read the *DYB* and viewed it as a useful contemporary statistical survey and record of Dundee’s economy and society.

³⁷ *Ibid.*, 45.

³⁸ “The Calcutta jute mills”, *DYB* (for 1894) 95.

³⁹ “Note”, *DYB* (for 1905) n.p.

However, in addition to this contemporary consumption, a recognition of the temporal transience of the *DYB* is important. It was intended for another audience, as it suggested in 1900: "it will be indispensable to the future historian of Dundee."⁴¹ As a repository for the history of Dundee, the *DYB* was constructed as an accurate record and survey of the city in its entirety, offering an ordered and systematic knowledge and truth of what 'was' that the historian could later draw upon. But as Driver reminds us: "there is no vantage from which to survey the whole; only a cloud darkening the brightness of the Enlightenment project."⁴² Although a publication of "Facts and Figures", the *DYB* was not a mirror of some external reality. It is with this in mind that I, as an historical geographer, have read and used this archival source.

The *DYB* amounted to a journalistic cartography of the city, its jute industry and place in empire, which showed Dundee in a specific way. Through a reading of a wide variety of articles, I suggest that it did not simply reflect social life in Dundee but was constitutive of it. Through a powerful local discourse defined by statistics and categorical representations, with the most intense social investigations focussing on the margins of society with the poor and working classes, notably working women, the volume was a forum which amassed information on the city, presenting only a partial and selective local knowledge.

⁴⁰ "Note", *DYB* (for 1900) n.p.

⁴¹ "Note", *DYB* (for 1900) n.p.

⁴² Driver here is referring to the ways in which the grand narratives of conventional Marxist history have fallen apart, especially in the wake of the work of Foucault. F. Driver, "Geography's Empire: Histories of Geographical Knowledge", *Environment and Planning D*, 10 (1992) 23-40, 36.

Building Power - Industrial Images and Masculine Cityscapes

I now turn to the role that industrial elites played in the shaping of the built industrial landscape and representations of it. In this way, I suggest, Dundee can be read more directly as a masculine cityscape both through its materiality and its representation in written text and image. I start with an article in the Dundee-based *People's Journal* from 1881. The author of the article writes:

I was wonderstruck at the great mills and factories, so much larger and more beautiful than our old village church, which had always appeared to me the most splendid of buildings. Great tiers of windows in successive storeys, finely ornamented gateways, pilasters and architraves, statues and fountains were all to me new and striking objects, and I carried home reports of the splendours I saw.⁴³

Indicative of the views of the large number of immigrants from Dundee's rural hinterland, these observations about Dundee's industrial landscape were made by a mill manager in the first of a series of articles entitled 'Sketches of Life in a Jute Mill'. The article demonstrates how, on arrival, Dundee's urban-industrial landscape was felt to be overwhelming, particularly to a child from rural Fife. It draws a comparison between the mills and factories and the boy's local village church, a type of comparison that, as Zonderman suggests, was not purely imaginary, for "the owners could cover their values into industrial capitalism with the physical and symbolic veneer of a religious presence and purpose."⁴⁴ And as Jones notes of the comparison drawn in this article, "[j]ust as a steeple marked the site of a church, they [the chimneys] could contribute to a dramatic scene."⁴⁵ Dundee's mills and factories created a powerful capitalist cityscape.

⁴³ "Sketches of life in a jute mill", *People's Journal* 14 May 1881.

⁴⁴ D. A. Zonderman, *Aspirations and anxieties: New England workers and the mechanized factory system, 1815-1850* (Oxford: Oxford University Press, 1992).

⁴⁵ E. Jones, *Industrial architecture in Britain, 1750-1939* (London: Batsford, 1985) 142.

With both a real and imagined religious resemblance, the jute mills and factories were a reminder to all in Dundee of just how much the city relied upon the industry for employment and economic stability. With a relatively small middle range of society between the jute masters (or ‘kings’ and ‘barons’ as they were known) and the workers⁴⁶, it is no surprise that the mills and factories were both created and read as monuments of wonder, with their owners prescribed in the role of austere and reverent figures. However, this architectural embodiment of capitalist power and class difference was not simply confined to the mills and factories. Checkland and Checkland suggest that the ‘juteocracy’ created some fine public buildings that “provided the city with an impressive core where an urban culture could express itself, [although] it was exclusively middle-class.”⁴⁷ Such visible expressions on the landscape which can often go unnoticed, “commemorate what we value and ... instruct us in our heritage.”⁴⁸ Although manufacturers in Dundee did not enter local or national politics to the same extent that they did in other textile towns, they still contributed to public life by imprinting their names and reputations on the landscape.⁴⁹ The ‘cult of the civic’ nurtured by local elites, including industrialists, fashioned what Patrick Joyce has called a ‘civic landscape’⁵⁰ which included the construction of public parks and

⁴⁶ In Dundee in 1861, 11.6 per cent of the occupied population had been in a middle class occupation. However, by 1911, this had risen to 17.8 per cent, much closer to the Scottish average of 25.1 per cent. See N. Morgan, and R. Trainor, “The dominant class” in W. Fraser and R. Morris (eds.), *People and society in Scotland, 1830-1911* (Edinburgh: John Donald, 1990) 103-137, 106.

⁴⁷ Checkland & Checkland, *Industry and ethos*, 47.

⁴⁸ J. Monk, “Gender in the landscape: expressions of power and meaning” in K. Anderson and F. Gale (eds.), *Inventing places: studies in cultural geography* (Cheshire: Longman, 1992) 123-138, 124.

⁴⁹ L. Miskell, “Civic leadership and the manufacturing elite: Dundee, 1820-1870” in L. Miskell, C. Whatley, and B. Harris (eds.), *Victorian Dundee: image and realities* (East Lothian: Tuckwell, 2000) 51-69.

⁵⁰ P. Joyce, *Visions of the People, industrial England and the question of class 1848-1914* (Cambridge: Cambridge University Press, 1991) 182-8.

gardens, town halls, universities, and so on.⁵¹ Such public spaces and buildings were not simply inert backdrops against which civic events took place; rather “they were increasingly politicized themselves...the civic landscape represented the town to itself.”⁵² Likewise, through the appropriation of space in the form of mills and factories, and other ‘public’ or ‘quasi-public’ buildings and sites, Dundee’s ‘juteocracy’ created a built environment in its own self-image. Dundee can be read as a very real masculine cityscape and the legacy of the ‘juteocracy’ lives on through its diverse marks on the landscape.⁵³

A guide book to Dundee in 1870 exclaimed: “Strangers visiting Dundee cannot fail to be struck with surprise on witnessing the vast numbers of tall chimneys which formed the most striking objects from whatever quarter the town is beheld.”⁵⁴ During its jute manufacturing years, Dundee had in excess of 125 works across the city.⁵⁵ This formidable concentration of industrial power, the imposing scale of many of the works, and the tall chimneys so common in heavy industry, dominated the cityscape. In their push to attract business, individual firms created an image of proficiency and strength through commissioned lithographs and photographs of their works. They were part of the city’s ‘booster literature’, and such literature constructed a partial way of seeing and knowing the city and its dominant industry. It was a way of seeing and knowing that was created by the jute companies.

⁵¹ Examples in Dundee include the Caird Hall, Lochee Park, and Baxter Park. Sometimes these ‘monuments’ would take the ‘juteocracy’s’ name, and other times not.

⁵² J. Vernon, *Politics and the people: a study in English political culture c.1815-1867* (Cambridge: Cambridge University Press, 1993) 49.

⁵³ As an attempt to re-adjust the masculinism of the city, a booklet entitled *Dundee women: city centre trail* was written by Mary Henderson in 1999, and exposed the more hidden histories of some of Dundee’s notable women through a 1½ hour walk around the city. M. Henderson, *Dundee Women: a city centre trail* (Dundee, 1999).

⁵⁴ Lawson Brothers, *A guide-book to Dundee* (Dundee: Lawson Brothers, 1870) n.p.

According to Alessio, industrial booster literature exaggerates the size of factory edifices “to give precedence to the actual building. At the same time, the people are diminished, making them appear merely secondary in importance.”⁵⁶ Plates 2 and 3 are examples of the booster literature generated by Dundee firms. As Alessio helps us to see, the majority of workers are absent, but the smoke from the factory chimneys suggests that the working day is in progress. And despite a few isolated figures, the only movements are those of the horses and carts, delivering raw jute and leaving with finished boxed products, letting the viewer know that the works are productive. We are presented with a sanitised view of work, a sanitation of the workplace where the processes going on inside and ‘in between’ - those of actual manufacture and labour - are kept out of sight. In this boosterist vein, the workplace is also depicted with ample space for future expansion, both economically and spatially. Images that spoke to the future as well as the present were all important.

Perspective depictions of mills and factories were also common, inflating both the size and scale of buildings (particularly chimneys). Referring to the concept of landscape more generally, Cosgrove notes how:

perspective was employed to control space and to direct it towards the external spectator...The people who occupy the landscape...do not themselves participate as subjects responsible for their worlds; they are puppets controlled by the artist.... The experience of the insider, the landscape as subject, and the collective life within it are all implicitly denied. Subjectivity is rendered the property of the artist and the viewer - those who control the landscape - not those who belong to it.⁵⁷

⁵⁵ M. Watson, *Jute and flax mills in Dundee* (Tayport: Hutton Press, 1990).

⁵⁶ G. Alessio, “Capitalist realist art: images of Hamilton, Ontario 1884-1910”, *Journal of Urban History* 18 (1992) 441-469, 443.

⁵⁷ D. Cosgrove, *Social formation and symbolic landscape* (London: Croon Helm, 1984) 25-6.

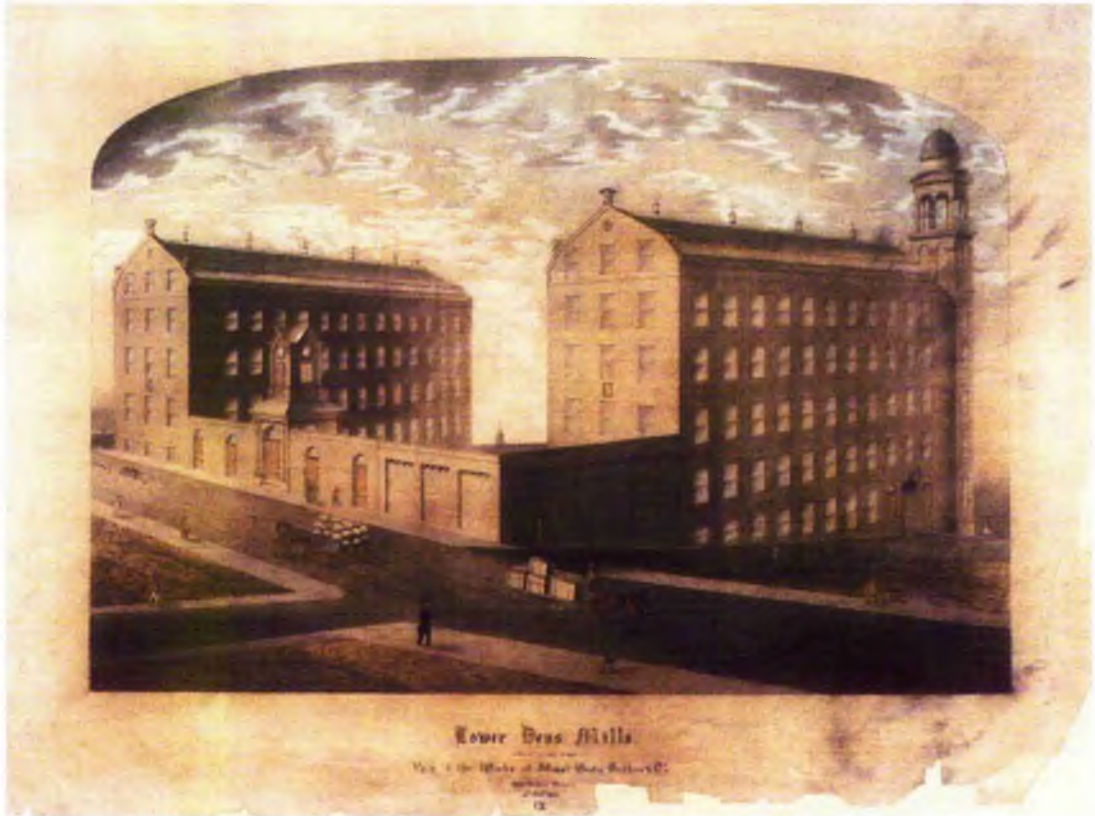


Plate 2: Artistic view of Lower Dens Mills.
Source: *Baxter Brothers & Co.*, MS11D/27, DUA.



Plate 3: Camperdown Works.
Source: *Cox Brothers*, MS66/II/12/1(1), DUA.

In the booster literature I am reviewing, the use of perspective was a common means of control in the way that Cosgrove suggests. The artistic and technical conventions of perspective created a gap between the viewer, who could hover above and see all, and the viewed, who were unaware of the holistic view, and were either caught in the image and used to represent efficiency and progress, or made invisible even if their absent presence was felt by the size of the works.

Roland Marchand demonstrates how modern manufacturing establishments and skyscrapers assume the iconography of “cathedrals of commerce” and rendered to the viewer a “fairytale vision” of industry.⁵⁸ And Lefebvre refers to a “phallic verticality” which he says became more prevalent with the development of modern business districts:

The arrogant verticality of skyscrapers, and especially of public and state buildings, introduces a phallic or more precisely a phallocratic element into the visual realm; the purpose of this display, of this need to impress, is to convey an impression of authority to the spectator.⁵⁹

In an examination of the business landscape of nineteenth-century New York, Mona Domosh suggests that skyscrapers reflected the instability and diversity of New York’s business class in the period. Such an environment ensured that they were continually striving for supremacy, looking to every possible invention or gimmick to gain a competitive edge. Skyscrapers became status symbols providing a lucrative investment and a very legible advertisement for new and

⁵⁸ R. Marchand, *Advertising the American dream: making way for modernity, 1920-1940* (Berkeley: University of California Press, 1985) 280.

⁵⁹ H. Lefebvre, *The production of space* (Oxford: Blackwell, 1991) D.Nicholson-Smith (trans.), 98.

competitive industries.⁶⁰ Taking a more acutely feminist lens to this, Weisman suggests:

The twentieth-century urban skyscraper, a pinnacle of patriarchal symbology, is rooted in the masculine mystique of the big, the erect, the forceful - the full balloon of the inflated masculine ego. Skyscrapers in our cities compete for individual recognition and domination.⁶¹

Similarly, both real buildings and iconographic and written representations of late nineteenth-century Dundee can be read as constituting a masculinist landscape of power and authority. With images and buildings designed by the firms themselves, Dundee's mills and factories were more than 'passive containers' of productivity and efficiency.⁶² Rather, they were part of a process of building power, both in the physical sense of producing ornate, lavish and imposing structures, and in the imaginative sense of impressing power and authority upon observers, workers and competitors alike. As Tann notes more generally about the development of the factory, there was a "desire to impress. With ever increasing competition between firms the potential customer would be attracted by the firm which appeared by its decorated façade to be the most successful."⁶³ And as Deal and Kennedy observe, this building power extends beyond and outlives its immediate function:

However irrelevant to the conduct of business, a company's investment in bricks and mortar - its building - inevitably says something about its culture. After all, building investments are made or at least overseen by senior management. As much as they'd like to avoid the thought, most senior managers recognise that the buildings will likely outlive them; thus

⁶⁰ M. Domosh, "Corporate cultures and the modern landscape of New York city" in Anderson, and Gale, *Inventing places*, 72-86.

⁶¹ L. K. Weisman, "Prologue" in J. Rendell, B. Penner, & I. Borden (eds.), *Gender, space and architecture, an interdisciplinary approach* (London: Routledge, 2000) 1-5, 1.

⁶² Markus notes that "Buildings are more than passive containers for relations." T. A. Markus, *Buildings and power: freedom and control in the origin of modern building types* (Routledge: London, 1993) 11.

⁶³ J. Tann, *The development of the factory* (London: Cornmarket Press, 1970) 159.

they try to create a setting that makes a statement to the world about their company, both deliberate and otherwise.⁶⁴

I have been trying to suggest that the mills and factories in Dundee can be juxtaposed with recent work on modern cityscapes in ways that generate new readings of the city's industrial landscape.

According to Watson, the 1860s was the most elaborate and ornate period of building in Dundee's jute industry.⁶⁵ It was the bell towers and chimney stacks at places such as Constable, Dens, Seafield and Tay Works and South and Ward Mills that received the most lavish designs.⁶⁶ However, it was chimneys that were the centre of attention as, "they were visible and obvious landmarks and, like the buildings themselves, they reflected changes in popular taste."⁶⁷ Cox's stack, based on a renaissance campanile - and described as "Dundee's great landmark, the finest chimney in Scotland"⁶⁸ - provides the most grandiose example of this building power (see plate 4). Most of the jute works had chimneys of various sizes and shapes, but that built by the Cox Brothers was larger than anything seen in Dundee before.

Messrs Cox Brothers owned the Camperdown Works situated in Lochee, in the north west of the city. The Works were constructed between 1850 and 1865 covering an eventual area of 35 acres, and at their peak at the end of the nineteenth century employed approximately 5000 people. The works have been

⁶⁴ T. Deal and A. Kennedy, *Corporate cultures: the rites and rituals of corporate life* (Reading MA: Addison-Wesley Publishing Co, 1982) 129-130.

⁶⁵ Watson, *Jute and flax mills*.

⁶⁶ According to Jones, *Industrial architecture*, chapter 7, Italianite architecture established a powerful hold over the mind of mill and factory designers, becoming more and more ornate and richly expressed in the second half of the century.

⁶⁷ *Ibid.*, 141-142.

⁶⁸ Watson, *Jute and flax mills*, 155.

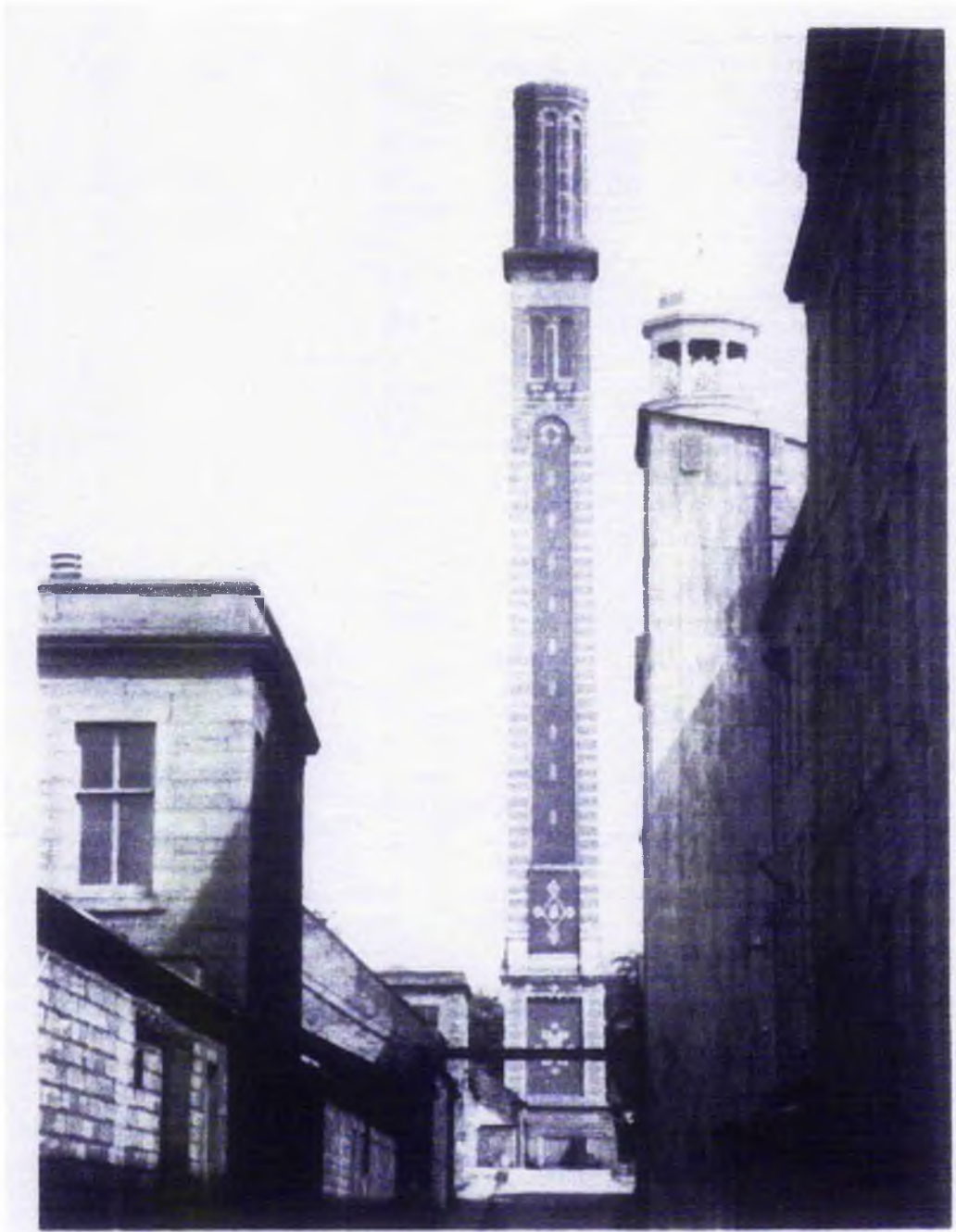


Plate 4: Cox's Stack, Camperdown Works.
Source: R.C.A.H.M.S.

described as “an outstanding monument to the era of Juteopolis, 70 feet high and 500 feet long, with a 100 foot tower and cast iron cupola at the eastern end.”⁶⁹ The stack for which the Camperdown Works were notorious was constructed in 1865-66 and replaced three earlier chimneys. Designed by James MacClaren (1843-90), and in Italianate style, it consisted of two principal sections: a square tower of bands of red and white brick supporting an upper octagon.⁷⁰ An ornamental iron balcony was placed at their meeting point. At 282 feet, its verticality was emphasised by tiny false windows and striped angle pilasters.⁷¹ When it was built, it was the tallest chimney stack in Britain and generated a great deal of interest within and beyond Dundee.⁷² Consuming over a million bricks and costing £6,000 it provided what was described as “a strong contrast to its cheerless-looking neighbours around it.”⁷³ This served as a very strong reminder to both residents nearby (many of whom would have been employed in the Works) and the rest of Dundee beyond the Law, of the presence, power, and success of Cox Brothers and their Camperdown Works. Contrasting readings of the stack have been offered with one history describing it as both a utilitarian symbol of capitalist achievement and another as grim reminder of a capitalist servitude.⁷⁴ That buildings carry symbolic meaning was manifested in Dundee through a number of externally ornate and refined jute works.⁷⁵ Cox’s stack, by intertwining functionalism and capitalism, heralds an aggressive masculinism, a

⁶⁹ F. J. Sim, *The jute mills of Dundee 1800-1900*, (Dundee, 1969) n.p.

⁷⁰ The second half of the nineteenth century saw an interest in the polychromy of Italian architecture and this demand for different coloured bricks together with the wider application of stones was compatible with Britain’s geology. See Jones, *Industrial architecture*, 125.

⁷¹ Watson, *Jute and flax mills*, 155.

⁷² See for example the article in *Building News*, 5 October 1866.

⁷³ *Ibid*

⁷⁴ C. Whatley, “The making of Juteopolis - and how it was” in C. Whatley (ed.), *The remaking of Juteopolis: Dundee circa 1891-1991* (Abertay Historical Society: Dundee, 1992) 7-23, 17.

⁷⁵ A. King, “Introduction” in A. King (ed.), *Buildings and society: essays in the social development of the built environment*, (London: Routledge, 1980) 1-33.

desire for recognition and supremacy in a highly competitive, male-led industry.

A booklet, *Dundee It's Advantages as an Industrial Centre*, issued by the Town Council in 1908 to promote the city made the following statement:

How much money do you think is invested in Dundee's jute mill and factories, with machinery? Over five million pounds. This is exclusive of the value of the ground on which they stand. Many firms have ground ready for extension. The mills and factories with warehouses within the grounds cover 110 acres. There are 20 acres of warehouse accommodation in Dundee - substantially built property, fitted up with appliances for the delivery and discharge of goods and materials. There is a quarter of a million in money in Dundee's chimney stalks alone. There are hundreds of these in the city, and the best known - Cox's of Camperdown Jute Works - cost £6,000.⁷⁶

Dundee was marketed as an industrial city by both the town council and the jute manufacturers themselves.

As jute complexes impressed themselves upon the city's space, an array of written texts and images that worked through discourses of progress and efficiency sought to enhance the prestige of both specific works and the city as a whole. However, such discourses could scarcely conceal the many problems associated with industrial-urban development - problems of overcrowding, poor housing, and ill-health.⁷⁷ This disjuncture of the progressive and the degenerative is understood by Elizabeth Wilson through the following gendered dichotomy:

The city is 'masculine' in its triumphal scale, its towers and vistas and arid industrial regions; it is 'feminine' in its enclosing embrace, in its indeterminacy and labyrinthine uncentredness. We might even go so far as to claim that urban life is actually based on the perpetual struggle between rigid, routinised order and pleasurable anarchy, the male-female dichotomy.⁷⁸

⁷⁶ *Dundee - its advantages as an industrial centre* (Dundee: Dundee City Council, 1908).

⁷⁷ These are discussed in detail in chapters 5 and 6

⁷⁸ E. Wilson, *The sphinx in the city: urban life, the control of disorder, and women* (Berkeley: University of California Press, 1991) 7-8.

The city's urban problems were set in opposition to the jute industry's triumphal chimneys, and size and scale rebounded on the desire for growth and efficiency in acutely problematical ways.

Exploring the Jute Works - Middle Class Journals and the Discourses of Progress and Efficiency

I will now further explore some of these 'micro-scale' themes by looking at a range of contemporary journals. Articles that appeared in more general middle-class texts such as the *Gentleman's Journal*, specific journals to industry and trade such as *Great Industries of Great Britain*, *Building News*, *The Builder*, and the *Australian Trading World*, and more local annuals such as the DYB, offered a comprehensive guide to the workings of a few of the jute works. As I want to suggest, they tell us as much about the journals, the journalists, and what I refer to as the discourses of progress and efficiency, as they do about the works themselves. I will focus on two articles that detailed Dundee's larger jute companies, and demonstrate how they worked through and reproduced a particular set of discourses and images.

In an article in *Great Industries of Great Britain*, Cox Brothers' Camperdown Works were described as a "model establishment" having been "constructed on a regular and well-considered plan."⁷⁹ Similarly, projecting an image of efficiency, productivity and progress, the *Australian Trading World* reported that:

the works display no patchiness of appearance nor agglomeration of blocks of different styles. The ground was laid out so as to admit of any department being extended without interfering with the general convenience of arrangements, which provide for the various processes of

⁷⁹ D. Bremner, "A model jute mill - prospects of the jute manufacture", *Great industries of Great Britain*, Vol. 3., (London: Cassell and Company Ltd., n.d.)163-7, 163.

manufacture being carried on without waste of time in moving the materials from one department to another. The jute stores, preparing, spinning, bleaching, dyeing, weaving, printing, calendering, and packing departments adjoin each other in convenient succession; and then there are an iron foundry, a brass foundry, and a machine-making shop, for all the machines used in the factory are made and repaired on the premises.

And, the article continued:

the arrangement of the works is so skillfully contrived that the various processes regularly succeed each other without the least obstruction, loss of time, or unnecessary labour.⁸⁰

Juxtaposed with the works' lithographs, this and other articles highlight temporal and spatial efficiency. This article also gives a biographical snapshot of the Cox family and its pioneering male members. Portraits of the male family members were placed alongside images of the works' exterior; the buildings became the material manifestation of their owners. Indeed, many of the jute works in Dundee were known not by their official names, but by the names of their owners.⁸¹

An article on Ashton and Craigie Works which appeared in the *Gentleman's Journal and Gentlewoman's Court Review* in 1913, observed that:

It needs only a visit to such Works as these to upset the popular fallacy of the littleness of man. The first shock is in the engine houses of which there are four, where one gets a vision of the majesty of the power of the human mind. It is stupendous to think that a brain should have planned, and small hands made the gigantic fly-wheels, and should have fashioned the engines that set them whirring to drive and countless frames and looms that throb and grind through the rooms and sheds. The feeling is deepened as one realises the untiring precision, the almost conscious action and the transforming, creating force of these pulleys and cogwheels, shaftings and shuttles, for it is not merely manufacture – it is art magic – creation by evolution, set not in the primaeval silence that in the Stone Age brooded over this very country, but framed in a rushing, pulsing, clicking, buzzing storm that deafens, dumbs and amazes. Then, when one follows step by step the processes of manufacture, one is lost in

⁸⁰ *Australian Trading World*, August 12 1887.

⁸¹ For example, Logie works along Edward Street was owned by J Sharp and referred to by their workers as Sharpy's. See DOHP tape 013, LS.

wonder at the delicacy and ingenuity of which this organised tumult is the audible and eloquent expression.⁸²

The article works through a series of photographs of the interior of the works, showing the various stages of production (see plates 5 and 6). These scenes however, are either entirely void of workers or contain a few isolated individuals - normally foreman or managers, or smiling workers performing their duties contently. The article continues:

Everything in the building is designed in order to secure a maximum of work with a minimum of time and trouble. The work goes straight on from process to process without ever turning back The plant is the most up-to-date in the world.

Employing a rhetoric of efficiency, forward movement and technical advancement, the article alludes to a competent company working at or towards maximum output.

These descriptions of Ashton and Craigie Works, and Camperdown Works, demonstrate the preeminence of a disembodied vision, a vision articulated through planning, efficient construction and management, and one that 'works on' the necessary bodily exertions needed to ensure that the works ran productively. The jute industry, it seems, was run by the efficient and progressive deployment of technology and scientific management. Images of the ancient and the modern were also conjured up and compared: "the former where brawn was king, the latter where brain is the ruler."⁸³ The mind (envisioned as definitively male) was heralded and pronounced, whereas the largely female bodies engaged to work the machinery were ignored. Again, such descriptions and language offer only a sanitized account of work with the workers denigrated and made invisible.

⁸² "Special Supplement", *Gentleman's Journal and Gentlewoman's Court Review*, 15 March 1913.

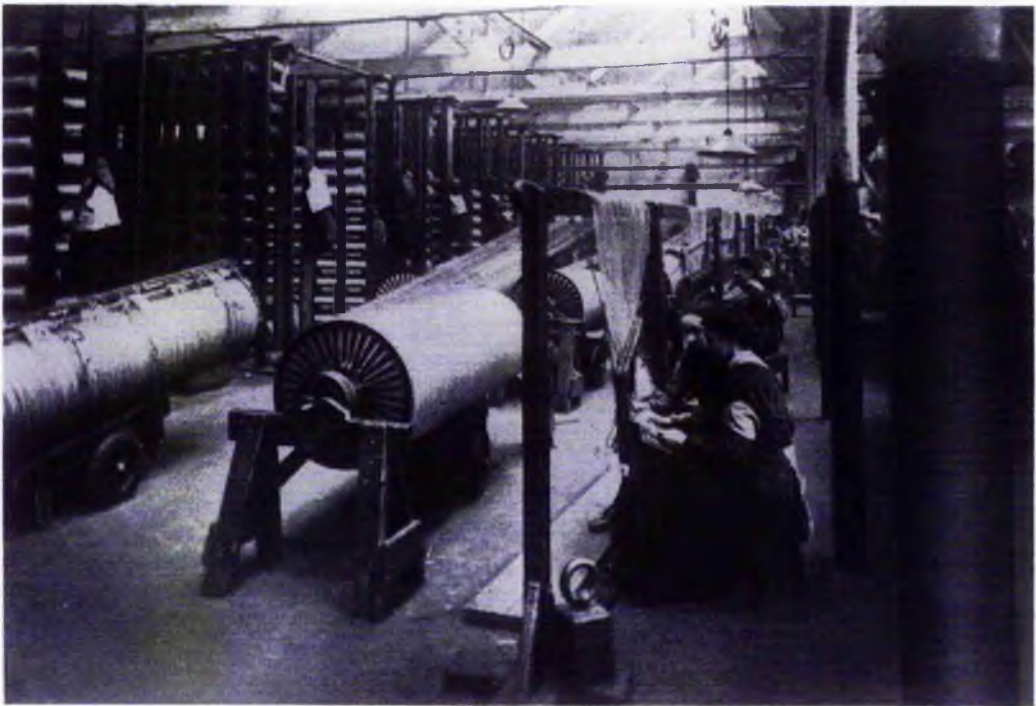


Plate 5: Drawing warp yarns through reeds and cambs, Ashton & Craigie Works

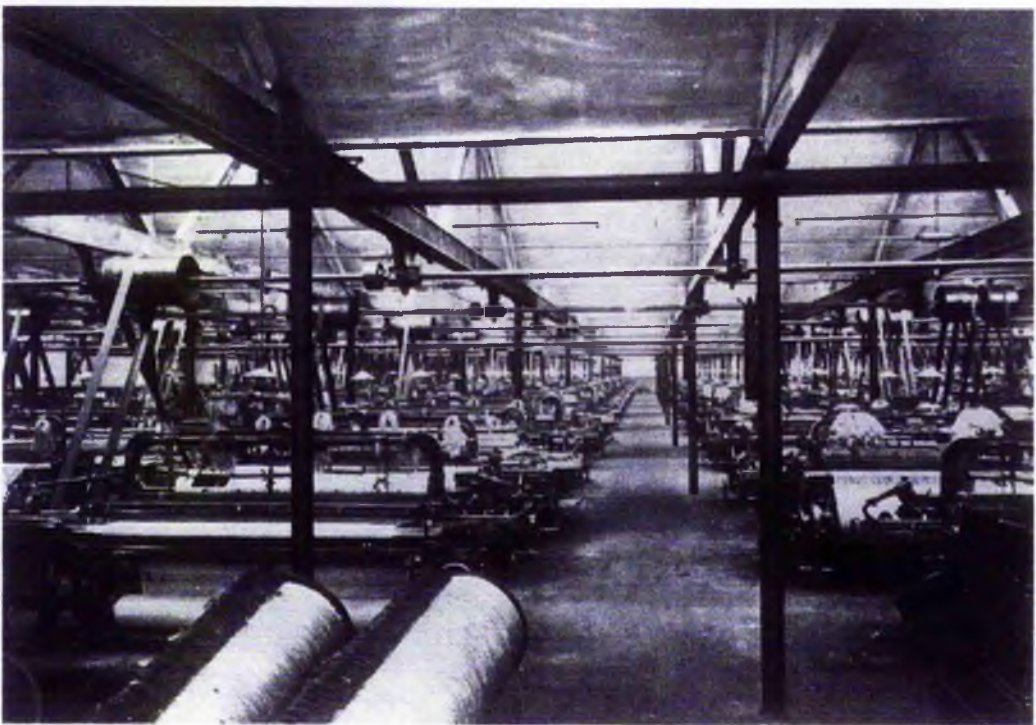


Plate 6: Part of the weaving shed, Ashton & Craigie Works
Source: Special supplement to *The Gentleman's Journal and Gentlewoman's Court Review*, 15 March 1913.

These passages referring to the production process are indicative of the overall rhetoric used in such articles. They provide a type of 'factory tourism' which produced new forms of knowledge. The language, and in particular the use of impersonal pronouns, demonstrates what was and was not made visible. Workforce culture and the social relations of production were concealed and aesthetics were accentuated. The language of movement, of not "ever turning back", produces the image of a forward thinking, modern, progressive industry. Such articles also demonstrate the importance of public opinion. That journalists and others were given access to the mills and factories to report on their inner workings reflected the need to produce and legitimate the discourse of the factory system. As Schaffer writes, such triumphal passages were "at once a claim about the machine tool system, and thus the control of matter by human intelligence, and a claim about labour discipline, and thus the control of the work force by its masters."⁸⁴ Articles and commentaries like the ones I have been discussing accumulated knowledge and intelligence on the factory system, heralded its achievements, and pointed to its wider virtue.

The use of photography in many of these article warrants some comment here. From the turn of the nineteenth century, photography became a "new mode of communication" which made possible what Jan Golinski describes as "a new geography and economy of knowledge."⁸⁵ Lithographs began to be replaced by photographic 'evidence' on the scale of both the city and the individual firm.

⁸³ *Ibid.*

⁸⁴ S. Schaffer, "Babbage's intelligence: calculating engines and the factory system", *Critical Inquiry*, 21 (1994) 203-227, 220.

With photography, the internal workings of the factories and mills could be made visible with each successive stage of the production process captured on camera. Photography was becoming an important tool of documentation and enhanced the journalists project of showing the 'truth'.⁸⁶

As the late nineteenth century embraced the use of photography for 'exploring the world',⁸⁷ photography also turned on the physical and human environments of many cities. In 1905, the *DYB* carried an article on the undertaking of the Dundee Photographic Survey and reported that:

No other town has yet undertaken the responsibility of handing down to posterity a complete and pictorial history of its people and their life in all its phases for the use of the future generations. The historic value must in time be enormous.⁸⁸

The Survey was the idea of two members of the Dundee and East of Scotland Photographic Association and the scheme evolved as follows:

A map of Dundee was prepared, set out in different districts and special subjects were assigned to about 30 members of the Photographic Association, who volunteered to take negatives of buildings, factories, churches, and street-scenes which would illustrate the life of the period. The negatives thus taken were critically examined by a Joint Committee, and if approved, three permanent prints were taken. The negative was returned with one print to the operator, and the other two prints were retained to make a double set of pictures. These two sets have been mounted and bounded in an efficient manner.⁸⁹

The survey which began in 1903 was not completed until 1915. In its final form, it consisted of 13 volumes on the subjects of: Industries; Churches; The Howff; Tay Bridge; Harbour; Streets; 2 volumes on Buildings; Closes; Education;

⁸⁵ See J. Golinski, *Making natural knowledge: constructivism and the history of science* (Cambridge: Cambridge University Press, 1998) 182.

⁸⁶ See J. Tagg, *The burden of representation: essays in photographs and histories* (London: MacMillan, 1988) chapter 2.

⁸⁷ A. Rouille, "Exploring the world in the nineteenth century" in J., Lemagny, and A. Rouille (eds.), *A history of photography* (Cambridge: Cambridge University Press, 1986).

⁸⁸ "Dundee past and present: the photographic survey", *DYB* (for 1905) 123.

⁸⁹ *Dundee photographic survey* (Dundee, 1915).

Tramway, Electricity and Gas; the Corporation Department; and Volunteers. At an exhibition of the portfolio in October 1915, all 35 men who were members of the Joint Committee Engaged in the Photographic Survey were together photographed sitting in front of a selection of the survey photos (see plate 7). This biographical photograph of the committee was a means of legitimating the survey. As respected public men, many of whom held important civic positions of office, they could offer an objective and comprehensive survey and thus the survey could be promoted as a true account of the city in all its facets.

The knowledge produced through such middle-class publications (including the photographic survey) was not neutral, it was not simply a matter of walking around the works and recording. The works were not simply 'there' to be read by an impartial investigator, but were constructed through a specific gaze, a gaze (which at times could be critical) that was formed through a particular nexus of knowledge and power, and class and gender. Visitors were not allowed to wander at will around the mills, factories and various other buildings but were restricted in their movements.⁹⁰ The writer would have been invited in, shown around, and allowed to reproduce only an official knowledge, a privileged knowledge that was created in conjunction with the jute firms. What appears as descriptive is instead highly choreographed, constructed through a specific workplace performance. The knowledge produced was worked through Dundee's business elite and delivered to an entrepreneurial and middle class readership.

⁹⁰ See Chapter 2, section on the 'Movement of People'.



From bottom row left and moving anticlockwise:

- | | |
|-------------------------------|-----------------------------------|
| 1. Prof. Steggall | 19. Mr. Finlay Lesslie |
| 2. Ex-Bailie High | 20. Ex-Bailie Allan |
| 3. Bailie Anderson | 21. Bailie Nicoll |
| 4. Ex-Bailie Nairn | 22. Ex-Baillie Moodie |
| 5. Ex-Lord Provost Hunter | 23. Mr. William Boyd |
| 6. Lord Provost Don | 24. Bailie Noble |
| 7. Ex-Bailie Crichton | 25. Councilor A. M. Strahan |
| 8. Bailie Forwell | 26. Mr. W. M. Leslie |
| 9. Mr. Archibald Campbell | 27. Ex-Bailie Johnston |
| 10. Lord Dean of Guild Dickie | 28. Procurator Fiscal David Dewar |
| 11. Ex-Bailie Martin | 29. Ex-Bailie A. W. Paton |
| 12. Dr. Charles Moon | 30. Mr. T. B. Taylor |
| 13. Mr. A. H. Rae | 31. Mr. George Worall |
| 14. Mr. D. Ferrier | 32. Mr. D. Irons |
| 15. Mr. John Peebles | 33. Ex-Bailie Mechan |
| 16. Mr. G. K. Smith | 34. Ex-Bailie T. D. Barnes |
| 17. Mr. D. Nicoll | 35. Bailie Kinmond |
| 18. Dr. A. H. Millar | |

Plate 7: Joint Committee engaged in the Photographic Survey
 Source: *Dundee Photographic Survey* (Dundee, 1916).

Conclusions

From the panoramic sketch of Dundee and accompanying description with which this chapter opened, I have worked through a number of different texts, from written accounts and images to material built forms. All of the archival sources I have drawn upon in this chapter have contributed to a particular way of seeing and knowing the city. Together, they create a certain normalising vision which has pervaded histories of the city. However, by offering a re-reading of the *DYB*, booster literature, buildings, and contemporary journals, I have attempted to interrupt and subvert the imposing discourse of Dundee's industrial landscape and show the gendered and classed practices through which they were produced. And further, by exploring the processes of both the production and consumption of this normalising vision, I hope to have dislodged the rhetoric of progress and efficiency, and at the same time illuminated some of the methodological issues that need to be brought to the archives. The deconstructive approach offered here is pursued throughout this thesis to undermine prevailing middle class and masculine discourse, and expose the power/knowledge relations through which they were forged.

From this starting point, the following chapters explore these different aspects of Dundee's industrial landscape. Focusing at the more micro-scale on the workings of various organisations and institutions, I explore the power relations through which knowledges and truths were created. Leading on from the reading of the jute works in this chapter, chapter two focuses specifically on the design of Dundee's mills and factories and their requirement as both spaces of production and maximum output, and surveillance and discipline of workers.

Chapter 2

The Jute Works: Spaces of Production, Surveillance and Discipline

The Dundee textile industry developed along three main axes: the Scouringburn, the Densburn Valley, and the Lochee burn (see plate 8). Of these, the Scouringburn became the major axis of industrial activity although it was the Lochee burn which became home to the world's largest single production unit, Camperdown Works. Powered by water and later by steam, mills clustered around these burns¹, and as the concentration of mills grew, lack of space and alternative power sources enabled only limited and haphazard expansion.² As one worker recalled:

Our mill was planted in a part of the town where now, after its repeated amplifications, the ground was becoming scarce, so that much ingenuity had to be exercised when new machinery had to be fitted up. The mill pond had been partly built over, and the ground dug away and quarried as far as was safe to give room for extension and improvement, and year by year it had become more and more crowded.³

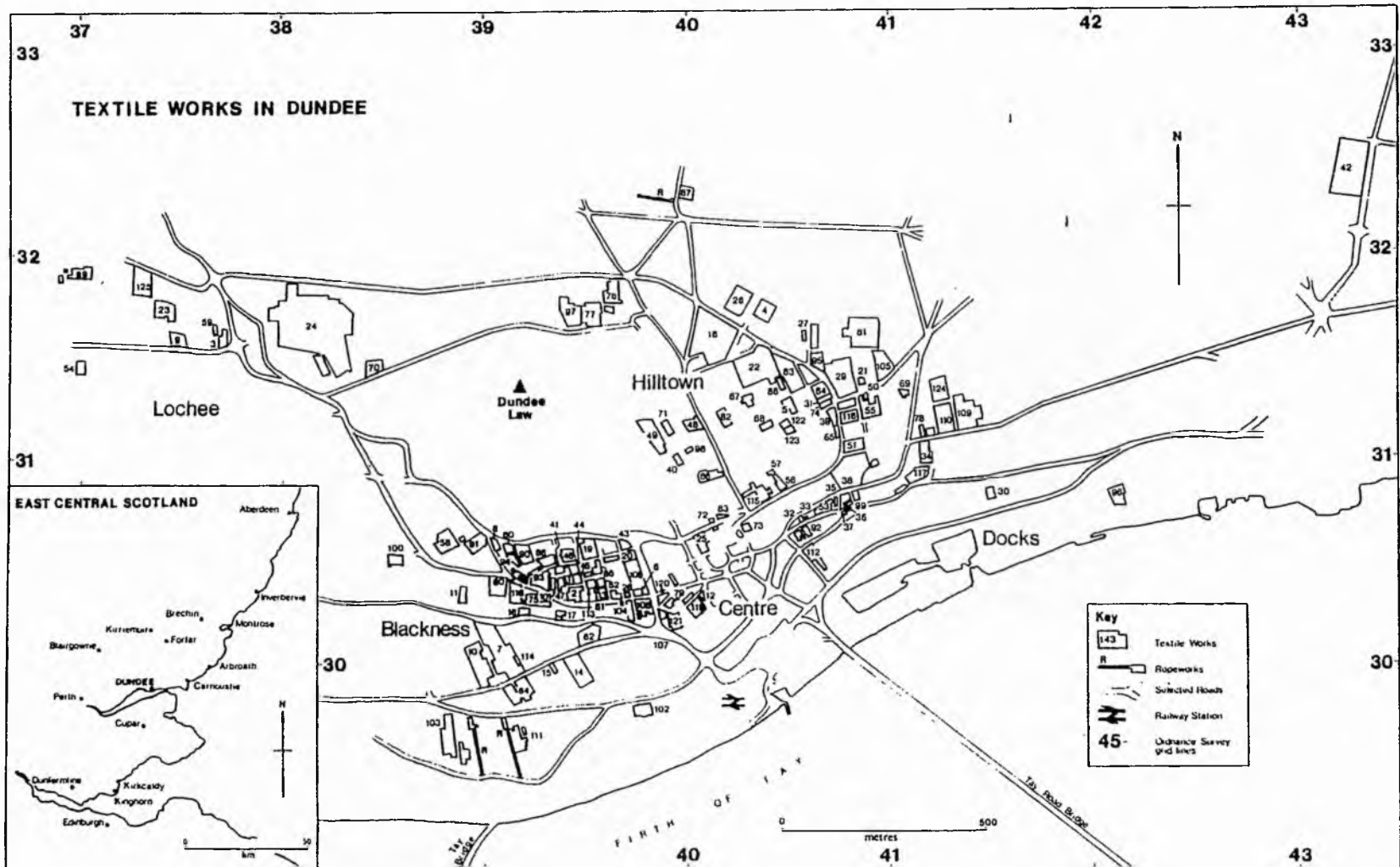
The source of power required to run the textile mills determined their initial geographical location and built form.

Mark Watson has traced the geographical and architectural development of Dundee's jute and flax works using plans, maps, photographs, company records, as well as the physical remains of the mills and factories themselves. This chapter

¹ W. H. K. Turner, "Some eighteenth-century developments in the textile region of east central Scotland", *Scottish Geographical Magazine*, 69 (1953) 10-21.

² Turner, *The concentration of jute and heavy linen manufacturers*.

³ "Sketches of life in a jute mill", *People's Journal*, 14 May 1881.



- | | | |
|------------------------------------|--|--|
| 1. Anchor Mill | 38. Upper Dens Mill | 87. Old Glamis Works |
| 2. South Anchor Works | 39. Dens Road Factory | 88. Park Mill |
| 3. Ancrum Works | 40. Don' Road Factory | 89. Pitalpin Mill |
| 4. Angus Works | 41. Douglas Mill | 90. Upper Pleasance Mill |
| 5. Ann Street Works | 42. Douglasfield Works | 91. Polepark Works |
| 6. Arch Mill | 43. Dudhope Works | 92. Queen Street/Dundee Calander |
| 7. Ashton Works | 44. North Dudhope/Meadow Mill | 93. Queen Victoria Works |
| 8. Balgay Linen Works | 45. South Dudhope Mill | 94. Ramsey Works/South Grove Mill |
| 9. Batic Works | 46. South Dudhope Works | 95. Rashiewell Works/Clelington Power Loom Works |
| 10. Bank Mill | 47. West Dudhope Mill | 96. Riverside Works |
| 11. Bank Mill | 48. Dundee Dyeworks | 97. Rockwell Works |
| 12. Barrack Street Mill | 49. Dundee Linen Works/Constable Works | 98. Rosebank Works |
| 13. Bell/West Ward Mill | 50. Dura Works | 99. St Roques Mill/Walace Mill |
| 14. Belmont Works | 51. Eagle Mill | 100.Scott Street Mill |
| 15. Bernard Street Factory | 52. East Mill | 101.Scouringburn Mill |
| 16. Blackness Road Factory | 53. East Port Calender Works | 102.Seabraes Mill |
| 17. Blackness Works | 54. Elmswood | 103.Seafield Works |
| 18. Bowbridge Works | 55. Erskine Works | 104.South Mills |
| 19. Bower Mill | 56. Forebank Dyeworks | 105.Stobswell Works |
| 20. Brown Street Factory | 57. Forebank Carpet Factory | 106.Tay Works |
| 21. Buchanan Works | 58. Garde Wokrs | 107.North Tay Street |
| 22. Caldram Works Caledonian Works | 59. Gowrie Factory | 108.New/West North Tay Sreet Mill |
| 23. Caledonian Works | 60. Grove Mill | 109.Taybank Works |
| 24. Camperdown Works | 61. Guthrie Street Mill | 110.Taybank Works |
| 25. Chapelshade Works | 62. Heathfield Works | 111.Tayfield Works |
| 26. Clelington Works | 63. Hillbank Linen Works | 112.Trade Lane Calander |
| 27. Clelington Waste Works | 64. Hillbank Mill | 113.Verdant Mill |
| 28. Column Mill | 65. Hillbank Hackle Works | 114.Victoria Works |
| 29. Constable Works | 66. Hillside Works | 115.Victoria road Calender |
| 30. Cottage Factory | 67. Jamaica Works | 116.Wallace Works |
| 31. Cotton Works | 68. Jamaica Street Factory | 117.Wallace Craigie Works |
| 32. Cowgate Calender | 69. James Park Factory | 118.Walton Works |
| 33. Cowgate Sackmaking Premises | 70. King's Cross Works | 119.Ward mills |
| 34. Craigie Mill | 71. Kinnaird Works | 120.Ward Street Mill |
| 35. Dens Works | 72. Ladybank Mill | 121.Ward Works |
| 36. Lower Dens Mill | 73. Ladywell Calender | 122.Wellington Works/Hillbank Factory |
| 37. Lower Dens Mill | 74. Laing Street Works | 123.Wellington Street Factory |
| | 75. Larchfield Works | 124.Wellfield Works West Mill |
| | 76. Lawside Works | |
| | 77. Lawside Dyeworks | |
| | 78. Lilybank Factory | |
| | 79. Lindsay Street Mill | |
| | 80. Logie Works | |
| | 81. Manhattan Works | |
| | 82. Maxwelltown Carpet Factory | |
| | 83. Mid Street Mill | |
| | 84. Mid Wynd Works | |
| | 85. Miln Street Mill | |
| | 86. North William Street Mill | |

Plate 8: Textile works in Dundee

Source: M. Watson, *Jute and flax mills in Dundee (Tayport: Hutton Press, 1990)* 192.

which discusses the space of the mill and factory, draws heavily on his work.⁴ The production process was split between two basic processes, spinning and weaving, and two buildings, the mill and factory, with a range of connecting procedures and ancillary buildings. The mill was where the jute fibre was prepared for weaving and had two parts. The Low Mill was where the preparing stages were carried out (where the jute was softened, carded and drawn out),⁵ and the High Mill was where the yarn was spun, twisted, reeled and wound.⁶ The jute yarn then left the mills and was taken to the factory where it was woven into cloth.⁷ This chapter focuses specifically on the design and architectural form of the jute works and I will explore how the mills and factories used space not only to optimize production, but also to optimize worker supervision.

Mills and Factories – Designing the Spaces of Production

William Strutt designed the first multi-storey fireproof industrial building in Derby in 1792. By 1807 at least seven fireproof mills had been completed with interior iron-framing, and by 1818 this mode of construction was being used to the heights of 8 storeys.⁸ The first iron-framed mill in Dundee was Bell Mill, built around 1806-7, although the main period of construction for this type of mill in the city did not come until the 1830s. In comparison to the spinning of wool and

⁴ Watson, *Jute and flax mills*.

⁵ This process begins in the batching department where jute bales were opened, soaked in an emulsion of water and oil and put through a softener. The jute was then put through carding machines which continued this softening process. Drawing frames then removed irregularities in the jute and turned it into a 'soft ribbon' like material which filled the bobbins. *Ibid.*, 25-7.

⁶ Spinning frames twisted the jute into yarn by means of a revolving flyer on a spindle. This yarn could either be warp or weft. Warp threads required a heavier twist than weft. The process of shifting referred to the removal of filled bobbins from the frame and their replacement with empty ones. *Ibid.*, 28.

⁷ Jute yarn left the mill and entered the factory as either warp or weft. The weft was wound into cops and inserted in shuttles. On the loom the shuttle carried the weft backwards and forwards, interlacing it in the warps, parallel threads which unrolled from a beam. *Ibid.*, 87.

⁸ A. W. Skempton and H. R. Johnson, "The first iron frames", *Architectural Review*, 131 (1962) 175-186. Also see Markus, *Buildings and power*, 270-4.

cotton, jute and flax spinning frames required less floor space but exerted greater floor pressure due to the heavier nature of machinery used. The sturdy construction of iron framed mills with ten foot spaces between columns was favoured. Iron frames were also fireproof, which was an important consideration given that jute was prone to self-combustion. With heavier, fixed machinery, a high proportion of total floor space was restricted to ground level and Dundee's mills therefore tended to be lower than textiles mills found elsewhere and in other industries. The construction of Edward Street Mill, Tayworks and Upper Dens Mills in the period 1850-1 marked a new departure in scale, architecture and building technique, with the mills becoming grander and more ornate in design (see chapter 1). However, in spite of this, Dundee's mills generally remained smaller than their cotton counterparts elsewhere in Britain, with only a handful over 4 storeys high, and most having 3 storeys.⁹

As jute is a coarse yarn, great attention was paid to its preparation and there was therefore a lower proportion of spinning to preparing machinery than was found in other textile industries. As Watson puts it, "[t]he system must...be balanced economically so that one machine does not outstrip or fall behind the others."¹⁰ In Dundee, this greater focus on the preparation of the jute fibre was reflected in the design of the buildings and the use and layout of space. To be economically efficient, each stage of production had to be coordinated with other processes to ensure a balance of material passing through.

⁹ Watson, *Jute and flax mills*, 32-42.

¹⁰ *Ibid*, 28.

However, by the 1860s, the multistorey design had been replaced by a single storey shed system.¹¹ As one observer wrote in 1907:

Almost all the modern jute mills and rope works are built upon the shed principle, with very often no partition between departments, the objects being to minimise labour and to permit raw material coming in at one end, passing through and going out as a finished product at the other end.¹²

Instead of partitioned departments, the shed system worked through an open plan design, bringing together a number of connecting processes under the one roof. The first single-storey mill in Dundee was at Stobswell Works, completed in 1895. However, it was more usual for a company to make additions to existing works and end up with a more eclectic mix of buildings. According to Watson, it was the Caldrum Works which was “perhaps the first large British textile complex to integrate spinning, weaving and finishing on a single storey.” Designed in 1872 by Robertson and Orchar for Harry Walker & Sons,

Jute passed from detached warehouses at the East and followed a straight line through six mill shed roofs, one for batching with all to cut fire risk, two for carding and drawing one for roving and two for spinning. The yarn is then passed straight to the winding and dressing departments, on to the power looms, and finally to the calendering and finishing area, ready for despatch. Never once has a hoist had to be employed and rarely does the jute have to be carried more than a few yards to the next stage in the process. No textile works could have a more efficient layout.¹³

The shed system enabled an efficiency that was not possible within the multistorey complex. Housing all departments under one roof brought new levels of coherence and efficiency to the production process.

The design of the sheds was determined by the shapes of the machines to be used, as the Engineer at Caird’s Ashton and Craigie Works recorded:

¹¹ This system had been introduced some 30 years earlier for the weaving section of the production process.

¹² H. R. Carter, *Modern flax hemp and jute spinning and twisting* (Dundee, 1907) 195.

¹³ Watson, *Jute and flax mills*, 75.

Assuming that the building is rectangular, all column spaces should be such as suit the machinery. It is not good practice to make all roofs the same span if by so doing the arrangement of the machinery is to be in any way made inconvenient for working the material.¹⁴

A good example of this is in the design of the Caldrum Works. According to Watson, the widest roof spans of 35 ft were found over the roving frames, finisher cards, and first and second drawings. The roofs over the spinning frames were 33 ft, the same length as the frames themselves, and roof spans of 28 ft were reserved for the breaker cards and power looms. In the batching shed however, the 33 ft roof was dictated less by the softener machines than by the space needed to store the batched jute.¹⁵ In the same way, the layout of the Manhattan Works, deduced from William Leggatt's *Theory and Practice of Jute Spinning* (see plates 9 and 10) again demonstrates that the spans of the sheds depended upon the size of the machinery and the amount of shafting required.¹⁶

The weaving side of jute manufacture implemented the shed system much earlier than the spinning side due to the particularities of the weaving machinery. The powerloom, initially invented and patented by Edmund Cartwright in 1785, was not widely adopted until the second decade of the nineteenth century. In 1813 the total number of power looms used in Britain was only 2,400. Within seven years however, some 45,000 steam driven powerlooms were in use, rising to 85,000 by 1835.¹⁷ It was at this later point that their use gained momentum in Dundee.¹⁸ In contrast to other machinery, the vibrations created by powerlooms meant that

¹⁴ Caird (*Dundee*) Ltd, Works Engineer's Book, c.1917, MS 60/1/3, DUA.

¹⁵ Watson, *Jute and flax mills*, 75-6.

¹⁶ W. Leggatt, *The theory and practice of jute spinning: a description of the machines used for batching, preparing, spinning and winding of jute* (Dundee: William Kidd, 1893). William Leggatt was the former manager of Manhattan Works and his plan of the layout of "an ideal jute mill" almost exactly matches the Manhattan Works.

¹⁷ Markus, *Buildings and power*, 274-5.

¹⁸ Watson, *Jute and flax mills*, 92.

PLAN OF JUTE MILL

Showing Arrangement of Machinery and Width of Passes.

Scale - $\frac{1}{4}$ " = One Foot.

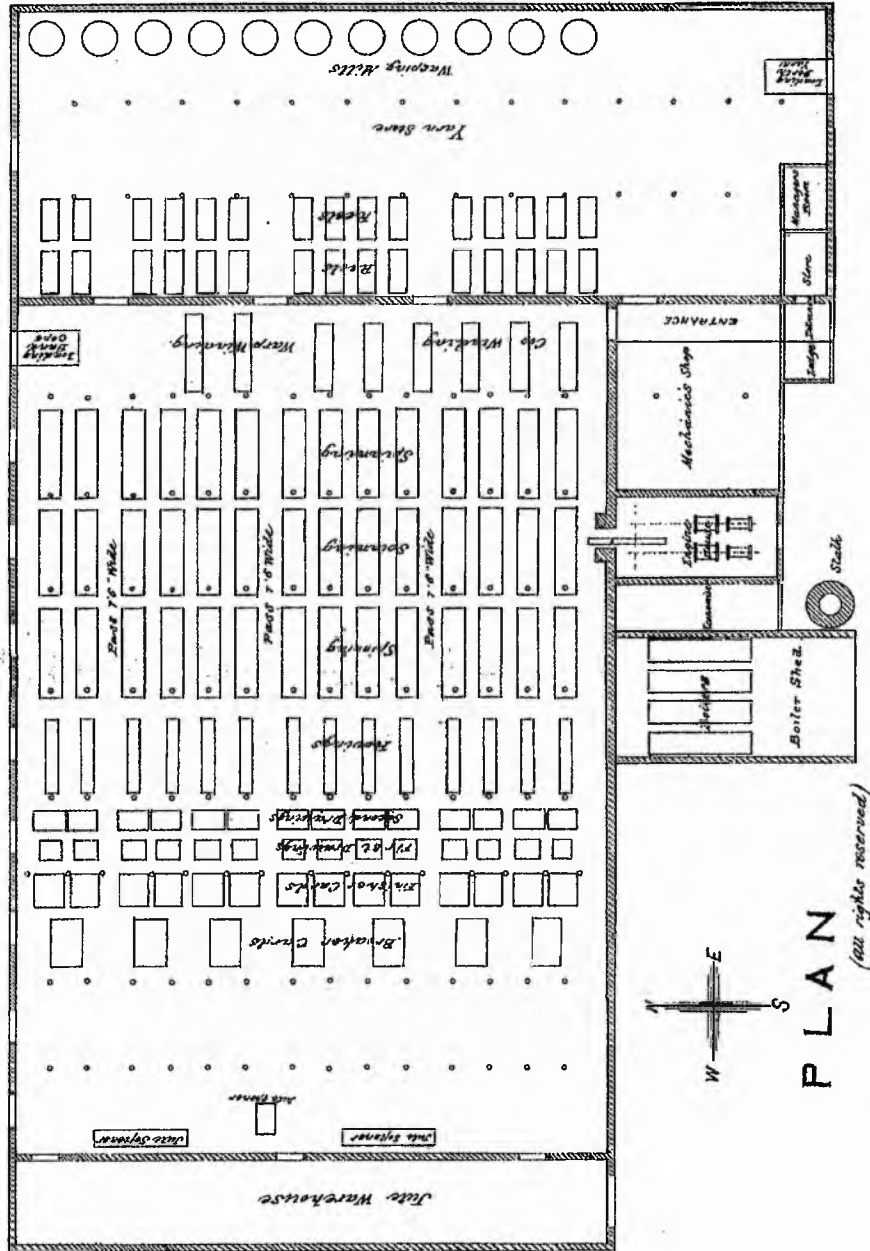


Plate 9: Plan of a jute mill showing the arrangement of machinery and width of passes.
Source: W. Leggatt, *The theory and practice of jute spinning* (William Kidd: Dundee, 1893) n. p.

PLAN OF JUTE MILL

Showing Pitch of Columns, Arrangement, Speeds, and Dimensions of Shafting.

Scale—1" = One Foot.

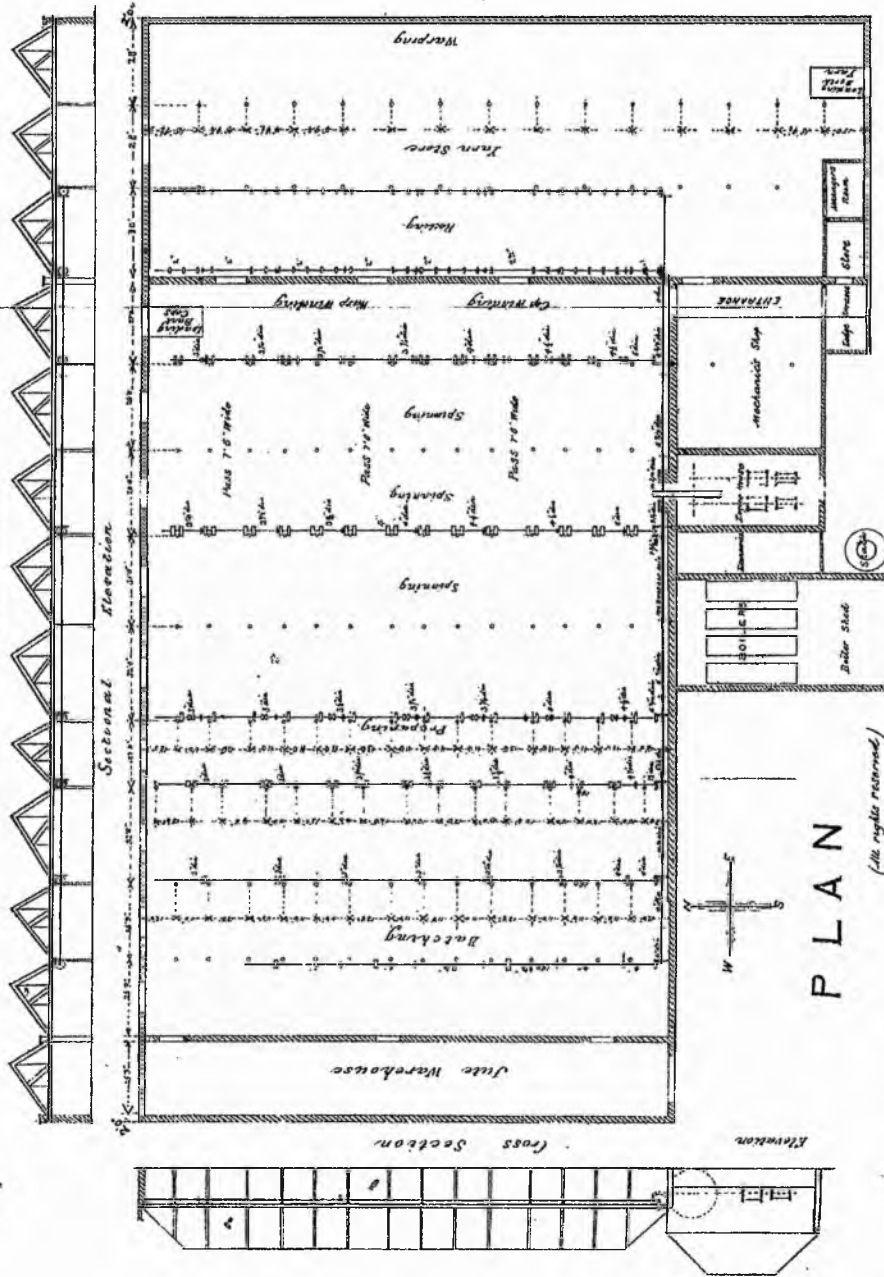


Plate 10: Plan of jute mill showing pitch of columns, arrangement, speeds and dimensions of shafting. Source: W. Leggatt, *The theory and practice of jute spinning* (William Kidd: Dundee, 1893), n.p

they were only safe on the ground floor, and hence the shed system was developed far earlier for weaving than for other processes. In 1877 William Leggatt, an overseer, stressed the importance of the design of weaving sheds, and of the organisation of space to ensure maximum output:

I consider a ground floor the best adapted for a work of this sort. The light can be best arranged from the roof; the shafting should be below, as it is steadier on this plan, and the looms can be more firmly fastened down with the shafting on this principle; and besides with the steadier drive thus obtained, the looms can with advantage be driven 20 picks per minute quicker than with the shafting above. Eight looms driven on the side shafts are as many as will be found suitable to give a steady motion to the loom. There should be a main pass six feet wide, and the main shaft should go down this pass. There should also be a space of at least three feet allowed for weavers passes, so that they may have space to go about their work. As a rule, in all factory plans the machinery is placed too close. Very often there is no main pass, and the weavers have so little space that this along with other drawbacks in arrangement, prevents the looms from going more than thirty-five out of sixty hours, and sometimes even less.¹⁹

The perfect layout for maximum efficiency of the production process was constantly sought. The exact placing of machinery and workers was critical in ensuring maximum production. In his handbook *The Construction of the Powerloom and the Art of Weaving*, Alex Brown noted the importance of the planning stages:

When a new factory or loom shed is about to be built, or an old one rearranged, a plan of the arrangement of the machinery is drawn out with a view to work it with the best possible expenditure of labour and power, and that the space at disposal may be economized to the utmost. We must look to the drawing for the exact position of each particular machine, and put it down as indicated there, so that when all the machinery has been put in position it will form a completed whole.²⁰

This process of planning was important to enable each piece of machinery to be positioned in relation to the whole production system. In addition, the handbook continued,

¹⁹ W. Leggatt, *The theory and practice of the art of weaving* (Dundee: William Kidd, 1877) n.p.

To economize the space for passes around the looms, and to have something like order in the factory, the looms should be grouped in fours, with all their belts running beside each other.²¹

Each piece of machinery had to be accurately placed in relation to the next, but also as part of the production process as a whole. An ordered geography of machinery - of machine layout - was therefore critical. The spacing of machinery was paramount and could only be achieved through careful and precise planning and organization.

In Dundee, the shed system for both weaving and spinning was adopted far more quickly than elsewhere and enabled the production process to run smoothly, and be both time and space efficient. As one theorist of jute production wrote in 1877,

One of the most important points in erecting a works is the saving of time. This object ought never to be lost sight of. From the first process of the manufacture until the cloth leaves the work as a finished piece, the various departments ought to be so arranged that the material leaving one process the next should be close at hand. It should not be necessary to carry the material backwards and forwards for long distances; also, a factory ought to be worked on a system of uniformity.²²

The internal spatial arrangement of the mills and factories was critical to ensure an efficient geography of movement as soon as the raw jute entered the mill. The *People's Journal* also explained the reasons for the shed system to its readers, in the following terms:

The fierce competition in the jute trade had caused the Dundee manufacturers to economize in every branch of their business during the past decade. Plans and methods have been adopted to bring about a saving in fuel, oils, and labour and factories have been built and reconstructed on the principle of the Chicago bacon curing establishments, where the live pig is introduced at one end of the place and comes out cured bacon at the other. The modern jute factory is as unlike that of twenty years ago as could well be imagined. There is now no high building of several storeys

²⁰ A. Brown, *The construction of the power loom and the art of weaving* (Dundee: James P. Matthew & Co.1896) 81.

²¹ *Ibid.*, 81.

²² Leggatt, *Theory and practice of weaving*, 91.

in which the different departments were connected by elevators or lifts of a more or less dangerous description, and which required, besides motive power to drive them, men and lads to guide their movements and to manage the loading and unloading of the hoists. All this is now done away with. The modern factory, as a rule is spread over a much wider area than the old. It expands to the width, and not the height, and the advantages gained are that spinning, weaving, finishing and, dispatching are all done on the one level. The raw material goes in at one end of the factory, and the bales of beautiful carpets or the bulk of finished hessian comes out at the other.²³

Such accounts emphasise the efficiency of the production process, and how it was made possible by a change in the geography of placement and movement within the works. As stairs, cloisters, and corridors and the movement of workers had been replaced by lifts and hoists “where a piece of moving space contained static people or objects,”²⁴ with the shed system vertical movements were replaced by a horizontal route of passage.

Jeremy Stein suggests that the geographical dimensions of factory life normally receive short shrift in traditional accounts of the factory system and industrial production processes as “a capitalist sense of time ignores the equally powerful and transformative role of space played in the industrialising process.”²⁵ He suggests that the spatiality of mills and factories and the spacing of machinery was crucial to the time-efficiency of the production process and had important implications for the way space itself was conceptualised in functional terms. Work spaces had to be flexible and it was common to ‘lay aside’ or convert looms of certain lengths at times when demand for particular widths of material were short. Figure 2 shows the number of changes made at Thomas Bell and Sons

²³ *People's Journal*, 18 Feb 1888.

²⁴ Markus, *Buildings and power*, 280.

²⁵ J. Stein, “Time, space and social discipline: factory life in Cornwall, Ontario, 1867-1893”, *Journal of Historical Geography*, 21 (1995) 278-299, 279.

Figure 2: Structural and machinery changes at Thomas Bell and Sons Ltd, Dundee, 1890-1893

Structural	Machinery
<p>June 1890 New gateway at entrance to Heathfield Works.</p>	
	<p>July 1890 Laying aside of 3 eight yard looms and purchase of four yard looms. 8 yard looms converted into 5 yard looms.</p>
<p>November 1890 Repairs to roofing and construction of new chimney stack at Heathfield Works. New shed at Belmont Works.</p>	
	<p>December 1890 Purchase of two 8 yard looms.</p>
	<p>February 1891 New hydraulic pump and packing press.</p>
	<p>March 1891 New smoke annihilator.</p>
	<p>May 1891 System of fire alarms at Heathfield.</p>
	<p>September 1891 'A few' 8 yard looms to be replaced by 'a number' of 86½ inch looms.</p>
	<p>October 1891 Additional spinning machinery purchased.</p>
	<p>May 1892 Purchase of new calender of 96 inch width.</p>
<p>March 1893 Wall and gateway to be built along the northern boundary of the Works.</p>	<p>March 1893 Purchase of 80 spindle frames. Renewal of paper roller of the 110 inch calender.</p>
<p>May 1893 Construction of new sheds and warehouses.</p>	
	<p>June 1893 Additional warp winding machine. Two new boilers at Belmont Works.</p>

Source: *Thomas Bell and Sons Ltd*, Minute Books, 1890-1893, MS66/I/1/1, DUA.

Ltd, Heathfield and Belmont Works, over a three year period.²⁶ Taken from the company's minute books, these changes to machinery and building represent only those that were officially recorded, but they nevertheless give an important insight into one company's practice of capital accumulation and its explicit search for the best use of space. These changes were largely made in response to the demand for various materials and lengths of jute, and show that the production space was in constant flux as directors would quickly respond to changing market conditions.²⁷ Minute books and directors reports frequently remark on how jute works were being kept in a "state of efficiency."²⁸ This presented not only the company's formal face but also the idea of the 'rational economic man' who would always maximize efficiency and profit.

As the engineer for Ashton and Craigie, and Bowbridge Works pointed out, it was a matter of perfecting both the components of building and the organization of machinery:

The general plan of the buildings, their design and construction show that the originators of the firm knew their business and could take a long view of things..... The buildings were built to stand the test of time and even today no better example of a substantially built mill and well constructed sheds could be found. And there can be no doubt that had this policy been continued throughout the years of the successive generations this firm would still rank foremost in jute spinning. Unfortunately while the walls have stood the test of time the organisation and machinery have failed.²⁹

As this suggests, both components were necessary for the efficient running of the production process and it was vital that owners could take the "long view" in

²⁶ *Thomas Bell & Sons Ltd*, Minute Books 1890-1893, MS66/1/1/1, DUA.

²⁷ This placed changing demands upon the workers, demands which would often lead to various kinds of resistance. See Chapter 4.

²⁸ Thomas Bell and Sons constantly commented in their minute books that the works were running efficiently. *Ibid.*

²⁹ *Caird (Dundee) Ltd*, Works Engineer's Book, c.1917, MS60/1/3, DUA.

maintaining and updating machinery to keep up with changing patterns of demand and adapting the workspace to these needs.

In Dundee, unlike other textile towns, engineering companies rather than architects were responsible for the design of the mills and factories. According to Watson, the jute industry was so localised that there was no scope for the great mill architects of England to contribute their expertise. As engineers both designed and furnished the mills and factories, building and machinery could complement one another, and thus ensure space and time efficiency.³⁰

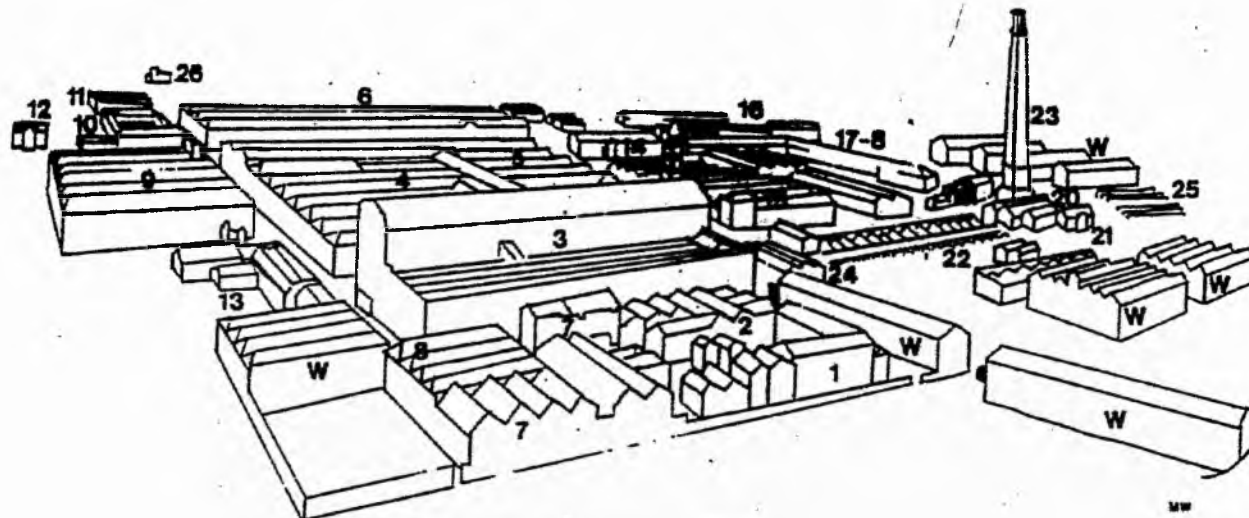
In the 1850s many, even very small works, became vertically integrated to enable greater control over the buying of raw material and selling of finished cloth.³¹ Whilst some firms concentrated on one or two processes, others incorporated the whole production process. Camperdown Works in Lochee covered an eventual area of 35 acres and at its peak at the turn of the century employed approximately 5000 people. Due to the firm's geographical influence and importance, Lochee has been described as "virtually a company town."³² As plate 3 demonstrates, the works were clearly demarcated. Such jute complexes have been described as "miniature towns"³³ and "self-contained townships"³⁴ because they incorporated all processes necessary for jute production (see plate 11). This demarcation and internalisation of the whole production process was exemplified by Cox Brothers, whose production censuses for 1908 and 1913 demonstrate that little or no work

³⁰ See Watson, *Jute and flax mills*, 182.

³¹ *Ibid.*, 179. This was in contrast to Lancashire's cotton industry in which the spinning of yarns was carried on in the south of the county, and the weaving in the north.

³² C. McKean and D. Walker, *Dundee: an illustrated architectural guide* (Edinburgh: Pillans and Wilson, 1984)109.

³³ "Female industries in Dundee", *DYB* (for 1884) 62.



Key to Circa 1900 Perspective

Key to circa 1900 Perspective View of Camperdown Works.

1	Burnside/East Mill	10	Stables	19	Fire Station
2	Batching Dept	11	R and D	20	Tar House
3	High Mill	12	Half-Time School	21	Marchbanks House
4	Lower Factory	13	Office	22	Boilers
5	Upper Factory	14	Foundry	23	Cox's Stack
6	'C' Range	15	Machine Shop and Forge	24	Train Shed
7	Bleach and Dyeworks	16	Timber Seasoning	25	Drying frames for fire-damaged jute
8	Waste Works	17	Pattern Store	26	Clement Park (a Cox residence)
9	Calender	18	General Store	W	Warehouses, Nos 1-24 raw jute (21-4 of sheet metal) Nos 25-6 for yarn, 26 later a canteen.

Plate 11: Perspective view of Camperdown Works, c. 1900.

Source: M. Watson, *Jute and flax mills of Dundee* (Tayport: Hutton Press, 1990) 141.

was given out to other firms.³⁵ Any work which necessarily extended beyond Dundee was retained under the control of the firm through its team of agents.³⁶ The Camperdown Works had stables, a half-time school, foundry, fire station and railway line. Cox Brothers ensured that they had tight control over every production stage to enable the company to run smoothly and maximise output and profit.

Beyond Machinery - Internal Geographies of Surveillance

The factory and the mill are the most revealing industrial forms in their organisation and space. In older economic histories it was common to trace their development through technological changes of machinery and power sources. The social dimensions of production were missing.³⁷

Mills and factories represented a functional geography and it is this functionalism which has been prioritized by industrial archaeologists.³⁸ However, an understanding of the production process which rests solely on the constant re-organisation and re-adjustment of machinery to cheapen commodities and adapt to changing demand is too technologically and economically determinist. In a Marxist vein, it would appear that “the labourer becomes a mere appendage to an already existing material condition of production.”³⁹ In this reading, with machinery prioritized, workers can be replaced at any time without interruption to work.

³⁴ M. Watson, “Jute manufacturing: a study of Camperdown works, Dundee”, *Industrial Archaeology Review* X (1988) 105-122, 105

³⁵ *Cox Brothers*, Returns in terms of the Census of Production Act 1906-13, MS 66/II/10/23, DUA.

³⁶ Raw materials were purchased by the agents of the firm direct from the growers in India, sorted and packed by their own presses and warehouses in Calcutta, shipped direct to Dundee in their own vessels, and then conveyed from the ships side in Dundee harbour by railway in their own wagons and sidings to the works. See “Messrs Cox Brothers, Dundee”, *Australian Trading World*, 12 August 1887.

³⁷ Markus, *Buildings and power*, 261-2.

This, however, was never the case, and I now wish to move beyond these determinist understandings. As the contemporary commentator of the factory system, Andrew Ure, noted:

It is ... excessively the interest of every mill-owner to organize his moral machinery on equally sound principles with his mechanical, for otherwise he will never command the steady hands, watchful eyes, and prompt co-operation essential to excellence of product.⁴⁰

It is the attempt to produce “steady hands, watchful eyes, and prompt-co-operation” that the rest of this chapter focuses on and here I draw upon Foucault’s writings on disciplinary power to offer a different reading of the geography of the workplace.

Foucault suggested that from the eighteenth century onwards “[a]rchitecture is no longer built simply to be seen, or to observe the external space, but to permit an internal, articulated and detailed control – to render visible those who are inside it.”⁴¹ According to John Rajchman, Foucault was “an exceedingly *visual* historian” and one who saw how “architecture helps “visualize” power in other ways than simply manifesting it. It is not simply a matter of what a building shows “symbolically” or “semiotically”, but also of what it makes visible about us and within us.”⁴² A significant portion of Foucault’s discussion of “space” is devoted to the problem of visibility - of how spaces are designed to make things seen and seeable - and Rajchman coins the term “spaces of constructed visibility”

³⁸ Despite discussions of the architectural, Watson concludes that “the architectural treatment of Dundee’s textile mills depended crucially on the function of the building.” Watson, *Jute and flax mills*, 184.

³⁹ K. Marx, *Capital, a new abridgement* (Oxford: Oxford University Press, 1995) 238.

⁴⁰ A. Ure, *The philosophy of manufacture: or, an exposition of the scientific, moral, and commercial economy of the factory system of Great Britain.*, (London, 1835) 417.

⁴¹ Foucault, “Space, knowledge, and power” in *The Foucault Reader*, 239-257, 241.

to describe how Foucault became interested in how things were 'given to be seen' and 'shown to knowledge and power'.

Foucault viewed Jeremy Bentham's 'Panopticon' as "the diagram of a mechanism of power reduced to its ideal form."⁴³ However, when drawing upon Foucault, there is a danger of associating his ideas about disciplinary power too closely with one "panopticon" design.⁴⁴ Foucault, of course, treated the panopticon as an ideal disciplinary mechanism that was "polyvalent in its application", that served "to reform prisoners, but also to treat patients, to instruct school children, to confine the insane, to supervise workers, to put beggars and idlers to work." As such, he confirmed, whenever "one is dealing with a multiplicity of individuals on whom a task or a particular form of behaviour must be imposed, the panoptic schema may be used."⁴⁵ The rigid design of the panopticon, with its annular plan and central tower, therefore must not be seen as a pre-requisite for its translation and transposition into other architectural types. Foucault's use of the panopticon as an ideal measure of various disciplinary projects, and how successful they were at creating a "synaptic" system of power, does not have to end with Bentham's annular plan. Rather, Foucault sensitizes us to the use of architecture and space, and spatial planning and protocol in the exercise of power, and particularly practices of objectification and subjectification that were based on confinement.

⁴² J. Rajchman, "Foucault's Art of Seeing" in *Philosophical Events of the 80s* (Columbia University Press: New York, 1991) 68-102

⁴³ Foucault, *Discipline and punish*, 205.

⁴⁴ See C. Philo, "'Enough to drive one mad": the organization of space in the 19th century lunatic asylums' in J. Wolch, and M. Dear (eds.), *The power of geography: how territory shapes social life* (London: Unwin Hyman Ltd, 1989) 50-66.

In contrast to Foucault's 'total institutions' conceived to correct 'deviant' populations and bodies, factories and mills were primarily spaces of production and capitalist accumulation that did not have an homogenous plan. Dundee's jute complexes differed considerably in size, scale and design, and as historians have recently stressed, there is a case for focusing attention on individual mills and factories as their conditions were far from uniform.⁴⁶ There was no one blueprint for mill and factory design in the jute industry and it is important to remain sensitive to the differences that existed and not be burdened by the image of the panopticon and its specular uniformity when considering the geographies of workplace surveillance in this industry.

As 'organizational geographies' have become less 'trendy' in recent years,⁴⁷ there has been a move towards what Philo and Parr have termed 'institutional geographies':

There are signs in the literature, accented by the very use of the term 'institutional geographies', that a sustained interest in the interactions of the institutional and the geographical is now on the agenda.⁴⁸

This is reflected both in an interest in the geography *of* institutions⁴⁹, but more especially in the geography *in* institutions.⁵⁰ Work in the latter vein has drawn

⁴⁵ Foucault, *Discipline and punish*, 205.

⁴⁶ Whatley et al., *The life and times of Dundee*, 117.

⁴⁷ According to Crang, "for much of the 1990s organisational geographies have been rather sidelined by a number of 'cultural turns' which have stimulated more interest in the realms of both identity politics and consumption than in questions of production, the social division of labour, and work." P. Crang, "Organisational geographies: surveillance, display, and the spaces of power in business organisation" in J. Sharpe, P. Routledge, C. Philo, and R. Paddison, *Entanglements of power: geographies of domination and resistance* (London: Routledge, 2000) 204-218, 204. Similarly, Allen notes that although Foucault's ideas on power have been the subject of much discussion and application within geography, this trend has been slow to develop in economic geography. J. Allen, "Economies of power and space", in R. Lee, and J. Wills, *Geographies of economies* (London: Arnold, 1997) 59-70.

⁴⁸ C. Philo, and H. Parr, "Institutional Geographies: introductory remarks", *Geoforum* 31 (2000) 513-522, 513.

⁴⁹ See for example R. Flowerdew, *Institutions and geographical patterns* (London: Croom Helm, 1982).

heavily on Foucault and his provocative suggestion that “[a] whole history remains to be written of *spaces* – which would at the same time be the history of *powers*.”⁵¹ Geographers have drawn upon Foucault’s ideas to explore the geographical histories of a number of institutions, including the poorhouse, the asylum, the prison, the reformatory school and the woman’s college.⁵² However, workplace organization, and in a specifically historical context, the factory system, have been neglected.⁵³ There are good reasons for this, the main one being that Foucault himself did not devote much attention to factories and factory work, even if these industrial dynamics can be recognized as a “persistent sub-text” in his work.⁵⁴

Attempts to find the origins of ‘discipline’ in either various corrective institutions or in factories have been considered by a number of theorists. Robert Sack, for example, has suggested that it was through the move from feudalism to capitalism that new types of social organization and control came about. Work was used to both define deviance and correct it. He suggests:

Even when it was clear that classes of deviants were simply unable to work, the institutions in which they were placed were often organized like factories... From simple sheds and buildings to contain people, these institutions of confinement, just as factory floors, became architecturally

⁵⁰ See Philo and Parr, “Institutional geographies”.

⁵¹ Foucault, “The eye of power” in *Power/Knowledge*, 146-165, 150.

⁵² C. Philo, “Enough to drive one mad”, F. Driver, *Power and pauperism, the workhouse system 1834-1884* (Cambridge: Cambridge University Press, 1993); T. Ploszajska, “Moral landscapes and manipulated spaces: gender, class and space in Victorian reformatory schools”, *Journal of Historical Geography*, 20 (1994) 413-429; M. Tamboukou, “Of other spaces: women’s colleges at the turn of the nineteenth century in the UK”, *Gender, Place and Culture*, 7 (2000) 247-263.

⁵³ Stein notes that the factory is not a ‘total institution’ in the Foucauldian sense as it does not hold its inhabitants permanently captive. He therefore does not fully engage with his ideas when exploring time-space discipline in his example of the factory system in Ontario. Stein, “Time and space”.

⁵⁴ This is suggested by N. Jackson, and P. Carter, “Labour as dressage”, in A. McKinlay, and K. Starkey (eds.), *Foucault, management and organization theory: from panopticon to technologies of self* (London: Sage, 2000) 49-64, 53.

sophisticated purpose-built structures to classify, contain, order and integrate.⁵⁵

And hence, “[t]he transformation of work, the rise of the factory, and the development of prisons, asylums, and schools were all interrelated.”⁵⁶ Melossi and Pavarini have also sought to establish the link between the rise of the capitalist mode of production and the origins of the modern prison, suggesting that they arose at the same time as one another.⁵⁷ For Foucault however, control via discipline did not develop first in the factory but in various social institutions, and it was from these that they were adopted by capitalists.⁵⁸ In a key passage in *Discipline and Punish*, he observes that:

the two processes - the accumulation of men [*sic*] and the accumulation of capital - cannot be separated; it would not have been possible to solve the accumulation of men without the growth of an apparatus of production capable of both sustaining them and using them; conversely, the techniques that made the cumulative multiplicity of men useful accelerated the accumulation of capital. At a less general level, the technological mutations of the apparatus of production, the division of layout and the elaboration of the disciplinary techniques sustained a ensemble of very close relations.⁵⁹

Commentators such as Clegg have reinforced this image, suggesting that capitalist industrialization simply modeled itself on those institutions which were already emergent. As he suggests: “[t]he dark satanic mills of Yorkshire and Lancashire simply latched on to the disciplinary apparatus already let loose from the monastery into the poorhouse, the work house, the orphanage, the barracks, and so on.”⁶⁰ Foucault’s focus on the prison led him to remark: “Is it surprising that

⁵⁵ R. Sack, *Human territoriality: its theory and history* (Cambridge: Cambridge University Press, 1986) 180-181.

⁵⁶ *Ibid.*, 181.

⁵⁷ D. Melossi and M. Pavarini, *The prison and the factory: origins of the penitentiary system* (London: Macmillan Press, 1981 (original published in 1977)).

⁵⁸ Bauman has also shown how the existing availability of disciplinary power mechanisms facilitated the development of capitalism. Z. Bauman, *Memories of class: the pre-history and after-life of class* (London: Routledge and Kegan Paul, 1982).

⁵⁹ Foucault, *Discipline and punish*, 221.

⁶⁰ Clegg, *Frameworks of power*, 173.

prisons resemble factories, schools, barracks, hospitals, which all resemble prisons?"⁶¹ However, I do not want to preside over a discussion of the origins and trajectory of disciplinary power, but rather my interest in the closeness of the production process and corrective institutions centres on the internal geographies of the factory system in Dundee, and how we might see the relations between the 'accumulation of capital' and the 'accumulation of men'.⁶²

Over the past fifteen years there have been debates within the field of management and organization studies over the conceptualisation of power⁶³, specifically over the critical purchase of Foucault's work.⁶⁴ One strong view that comes out of these debates is that Foucault's ideas of 'total institutions' cannot be translated to the workplace.⁶⁵ However, Clegg's work serves as a corrective, suggesting that the panopticon arranges power, not for itself - not discipline for disciplines sake - but as a means of strengthening and improving, be that 'improving' criminals or strengthening economy and production.⁶⁶ Clegg and others therefore call for more flexible readings of Foucault, and one of the main challenges, Jonathan Crush has suggested, "is to integrate an analysis of the

⁶¹ Foucault, *Discipline and punish*, 228.

⁶² Foucault suggested that, in contrast to the confinement of the eighteenth century which excluded individuals from the social circle, the confinement of the nineteenth century 'attached individuals' - be it to an apparatus of production, training, reform or correction. See M. Foucault, *Power: essential works of Foucault 1954-1984*, J. Faubion (ed.), (London: Penguin, 2002) 78.

⁶³ Stewart Clegg has written extensively on the issue of power. See for example Clegg, *Frameworks of power*, and S. Clegg, "Radical revisions: power, discipline and organizations", *Organization Studies*, 10 (1989) 97-115.

⁶⁴ See McKinlay, and Starkey, *Foucault, management and organization theory*, for a good overview of recent journal articles which consider the relevance of Foucault's work.

⁶⁵ Giddens rejects Foucault's ideas for the study of the workplace. As he puts it, "the imposition of disciplinary power outside the context of enforced sequestration tends to be blunted by the very real and consequential countervailing power which those subject to it can, and do, develop." Giddens regards disciplinary power as a sub-type of administrative power, but dismisses Foucault, as he regards 'maximized' disciplinary power of this sort as expressing the general nature of administrative power within the modern state. A. Giddens, *The nation-state and violence* (Berkeley: University of California Press, 1987) 186. These ideas are explored in more detail in chapter 3.

domain of production with a Foucauldian reading premised on more diffuse definitions of domination and dispersed notions of power.”⁶⁷

In a text devoted to Foucault and organization theory, Alan McKinlay and Ken Starkey suggest that “Foucault’s project – and its limits – demand much more extensive research into the history of the factory and the office.”⁶⁸ In Foucault’s own fleeting references to the production process, he remarked:

In the factories that appeared at the end of the eighteenth century, the principle of individualizing partitioning became more complicated. It was a question of distributing individuals in a space in which one might isolate them and map them; but also of articulating this distribution on a production machinery that had its own requirements. The distribution of bodies, the spatial arrangement of production machinery and the different forms of activity in the distribution of ‘posts’ had to be linked together.⁶⁹

This passage is taken from the section in *Discipline and Punish* where Foucault discusses the techniques of enclosure, partitioning and functional positioning that facilitated the development of discipline.⁷⁰ His ‘rule of functional sites’ suggests that particular spaces were defined not only by the need to supervise those within, but also by the desire to create a useful space.⁷¹ Foucault recognized the specificity of capitalist discipline, and started to consider how the architectural space of the mills and factories was not simply about locating bodies, but also about ensuring the efficient operation of the production process.⁷² One of my aims here is to expand on these fragmentary remarks about the factory in

⁶⁶ Clegg, *Frameworks of power*.

⁶⁷ J. Crush, “Scripting the compound: power and space in the South African mining industry”, *Environment and Planning D*, 12 (1994) 301-324, 307. Here Crush moves beyond the ‘architectural’ scale to focus upon the compound system which can be seen as a hybrid of the ‘production process’ and the ‘total institution’.

⁶⁸ McKinlay, A., and Starkey, K. “Managing Foucault: Foucault, management and organizational theory”, in McKinlay and Starkey, *Foucault, management and organization theory*, 1-13. 3.

⁶⁹ Foucault, *Discipline and punish*, 144-145.

⁷⁰ *Ibid.*, 141-145.

⁷¹ *Ibid.*, 145.

⁷² Foucault makes reference to the Oberkampf manufactory at Jouy. *Ibid.*, 145.

Foucault's work, and think more carefully than historians about the disciplinary matrices that shaped Dundee's jute works.

For a start, the shed system in Dundee did not simply enable the smooth progression of jute through its various stages of manufacture. Manufacturers and social commentators also pointed to a set of ties between the shed system and surveillance. For instance, Mr. Smith, who had a weaving factory at Deanston remarked that the initial cost of the shed system "would be fully compensated by the facility of superintendence alone, as in many factories this was of the utmost importance."⁷³ Similarly, the contemporary commentator and Benthamite disciple Edwin Chadwick wrote that, despite the initial expense of a change in the building and layout:

it appeared to possess countervailing economical advantages to the capitalist, the chief of which are, - this same facility of constant supervision, the increase of the certainty of superintendence, and the reduction of the numbers of subordinate managers, the increase of efficiency of management, and the diminution of its expense.⁷⁴

The successful surveillance of workers was part of the economic trajectory of cost reduction. Tying this more explicitly to the figure of the panopticon, Sack suggests that modern industrial architecture (of which the shed system was a part), has in fact taken the principles of the panopticon one step further. Partitions

⁷³ Cited in Watson, *Jute and flax mills*, 76.

⁷⁴ In his Report on the Sanitary Condition of the Labouring Population and on the Means of its Improvement, 1842, Sir Edwin Chadwick, was particularly concerned for the social repercussions. He wrote: "The bad manners and immoralities complained of as attendant on assemblages of workpeople of both sexes in manufactories generally occur, as may be expected, in small rooms and places where few are employed, and that are secluded from superior inspection and from common observation. But whilst employed in this large one room, the young are under the inspection of the old; the children are in many instances under the inspection of parents, and all under the inspection of the employer. It was observed that the moral condition of the females in this room stood comparatively high. It would scarcely be practicable to discriminate the moral effects arising from one cause where several are in operation; but it was stated by ministers that there were fewer cases of illegitimacy and less vice observable among the population engaged in this manufactory than amongst the surrounding population of the labouring

within the factory became far more flexible than Bentham anticipated, to the point that many were literally invisible. While partitions within the factory were not always physically demarcated, they were still clearly etched in the minds of both the worker and the supervisor.⁷⁵

Markus alerts us to new concerns that the shed system brought:

These huge open spaces generated new relations. Diverse processes had to be accommodated, differentiated and controlled by elaborate management techniques rather than physical barriers. Surveillance became easier; this both increased control and discipline but also gave new opportunities for worker solidarity. The weaving shed was a new type, in embryo the open production space of the Ford motor plant had arrived.⁷⁶

Whether a works conformed to the perfect shed system or had a mix of building types, the concern for the surveillance of workers as well as the efficient placing of machinery was ever present. The following is an extract from the Buist Spinning Company Directors' report for 1903:

Mill Buildings These are being well kept up and the Directors are now taking in tenders for extending the Mill to the North, so that a Mechanic shop, Joiners' shop & Smithy can be put down all in one. In this way there will be more complete supervision by foreman than at present with each shop in a different place.⁷⁷

Similarly, Thomas Cox of Camperdown Works wrote of how the Dundee mills, in contrast to those found in Calcutta, "are owned by the parties who carry them on" and therefore "everything [is] closely watched."⁷⁸ Surveillance of both machinery *and* workers was central to the efficient working of the production process.

class." E. Chadwick, *Report on the sanitary condition of the labouring population of Great Britain* (1842), M. W. Flinn (ed.) (Edinburgh: Edinburgh University Press, 1965) 306-7.

⁷⁵ Sack, *Human territoriality*, 188. Sack's work explores ideas of human territoriality and here he suggests that despite the disappearance of physical boundaries, the foreman's territory remained clearly marked out.

⁷⁶ Markus, *Buildings and power*, 275.

⁷⁷ *Buist Spinning Company Ltd.*, Minute Book No. 1., 16 March 1903, MS71/II/1, DUA.

Work – an enclosed disciplinary space

Jeremy Stein has asked:

what was the factory if not a self-contained, highly centralized and controlled work environment? Sealed off from the outside world, split up into departments and workrooms, assigned specific tasks and works stations, workers experienced a discipline that was acutely spatial.⁷⁹

According to Foucault, discipline proceeds from the distribution of individuals in space and to achieve this end, it employs several techniques. The first technique is that of 'enclosure'. In relation to the textile industry in Dundee, jute complexes were well-defined, homogenous spaces, segregated from the rest of city life. The lithographs (artistic exaggeration aside) demonstrate how works were enclosed sites, often surrounded by high walls or fences, with one official point of entry and exit. The *DYB* for 1884 described the scene when entering Grimond's jute works:

Entering the large gates, you find yourself in a miniature town. To the left is the dining-hall which the firm is erecting for the convenience of workpeople who are far from their homes, commodious warehouses where the raw jute is stored, paved streets, handsome lamps, and a general air of spick and span orderliness which is very impressive after the bustle and confusion of the street we have just left on the other side of the gates.⁸⁰

This orderly and organised 'miniature town' is represented in stark contrast to life 'outside'. One was immediately aware of crossing a boundary between inside and outside - the ordered world of work and the chaotic world of the outside. Crucially however, despite the secure and contained nature of the work place, workers did not experience 'confinement' in a literal Foucauldian sense - as

⁷⁸ *Cox Brothers*, Private Letter Book No. 1., Letter to 'Harry', 14 January 1881, MS66/II/2/1, DUA.

⁷⁹ Stein continues, "Indeed, the notion of "time-discipline" needs to be upgraded to "time-space discipline."" Stein, "Time and space", 289.

⁸⁰ "Female industries in Dundee", *DYB* (for 1884) 62.

would, for example, a prisoner or asylum inmate. As Giddens has stressed, and Weber pointed out, workers could leave during the breakfast and lunch hour and, of course, at the end of the day. Confinement worked in a different way and crucially, had a different geography.

It was normal for there to be only one official point of entry and exit. Work gates were therefore an important symbolic site for both employers and employees. Plate 12 is an example of such gates. An important location in a work's geography, they became a much photographed point from which to view the range of characters entering and leaving the works.⁸¹ They were designed to exclude uninvited outsiders and could, when necessary, be easily sealed off from the outside world (which was particularly important in times of labour unrest).⁸² Next to the gates was the porters lodge, and although the mills and factories were not fortified or under guard as such, jute companies stressed the need to have porters who were "tall powerful well-built, energetic and decided" men.⁸³

The working day was rigid. A twelve hour day was the norm with two breaks of forty-five minutes for breakfast and one hour for lunch. In the 1870s, working hours were shortened and it became standard practice to cease work on a Saturday at 9.30am rather than 1pm. Work began in the mornings at 6am,

⁸¹ For example, the Dundee Photographic Survey chose the works gates as an important point to catalogue. *Dundee Photographic Survey*.

⁸² In a paper on the prison system, Philo highlights the gate as a weak point in the prisons enclosing geography: "This (the gatehouse) was the vulnerable point in the prison's spatial layout, the point of access or egress, and guards in the different parts of the 'gate' had to be especially vigilant in their counts, checks and searches to prevent both the escapes and the admission of unsanctioned people and items." C. Philo, "Accumulating populations: bodies, institutions and spaces", *International Journal of Population Geography* 7,(2001) 473-490, 479. In the same way, the gates to the mills and factories were points of vulnerability as places of congregation and protest (see chapter 4) in which the comings and goings of workers were monitored.

⁸³ *Cox Brothers*, Private letter book, 1893-96, 9 November 1893, MS66/II/2/2, DUA.



Plate 12: Work gates.
Source: *Dundee Photographic Survey* (Dundee, 1916).

(although in the winter some of the works would have a later start and compensate by having shorter breaks for breakfast and lunch),⁸⁴ and to ensure prompt arrival, jute works had their own ‘bummers’, bells, and steam whistles, which, sounding at various intervals, gave notice to workers that work was about to commence. In addition, it was common for workers to call on the services of a ‘knocking-up’ boy, who would tap on doors and windows to waken workers.⁸⁵ It was particularly important that workers arrived on time as the gates would be closed exactly at the starting time, and unpunctual workers would have a portion of their wages deducted, even if they were only a few minutes late. According to the Royal Commission on Labour’s 1893 report on the employment of women:

With regard to disciplinary fines, as, for example, for late attendance, I find that several firms impose a fine of 1*d.*, on workers who are late in the morning or afternoon. The limit allowed in this way varies in most cases from one to five minutes. In some mills, when workers are 10 minutes late they are not allowed to begin work at all during the forenoon, but must remain out until dinner time.⁸⁶

The use of bells and whistles was a way of imposing a sense of ‘time-thrift’ amongst workers.⁸⁷

During working hours, workers had to receive official acknowledgement before exiting the premises. In Grimond’s works, for example, workers requiring to leave during working hours had to “get out a pass-check which will be signed by the responsible foreman of the department. This pass is to be handed to the lodge

⁸⁴ Gordon, *Women and the labour movement*, 146.

⁸⁵ The importance of arriving on time to work was felt by many especially in times of industrial slump when work was scarce. It was common for workers to pay a young boy to act as a ‘knocker up’ in the mornings. See DOHP tape 020, LS.

⁸⁶ Royal Commission on Labour, *The employment of women, conditions of work in various industries in England, Wales and Scotland* (London, 1893) 304.

⁸⁷ See E. P. Thompson, “Time, work-discipline and industrial capitalism”, *Past and Present* 38 (1967), 56-97, and S. Pollard, “Factory discipline in the industrial revolution”, *Economic History Review*, 12 (1975) 254-271.

keeper before leaving.”⁸⁸ In this way, foremen were to account for every worker at all times. This form of spatial confinement caused discontent amongst the workers as a letter from the DDJFWU to Grimond’s articulated:

I am requested by pieceworkers to draw your attention to a hardship that is being placed on them by the rule that no person will be allowed to leave the works without a pass. They are being kept hours in the works when there is no work for them. In cases where a pass has been asked it has been refused. I give two examples. On Sat. 10th inst. a weaver had her web out at 11.10am cleaned her loom and asked away at 11.40 was refused. On same date another weaver had her web out at 6.30am and was refused a pass at 8am. Her loom was not started until 10am that day, the ‘lay’ of the loom was being repaired.⁸⁹

If any worker was to leave without gaining the foreman’s permission, they were to be reported at once to the porter who could then strike them off the company’s books and ensure they could not come back inside or be re-employed.⁹⁰ At the scale of the works as a whole, the presence of each worker was assured through the implementation of such rules. The invisible but knowing gaze of the employers could be cast over the entire geography of the works through the use of foremen and porters so that all workers could be accounted for. This, roughly, is how confinement worked in the jute works; not through incarceration and a loss of liberty but the ever-present and polyvalent threat of an immediate loss of livelihood.

Discipline through Visibility

Matthew Hannah notes that, “Whatever its concrete practical variation, disciplinary power involves *regulation through (either literal or metaphorical)*

⁸⁸ *J & A D Grimond*, List of rules, rule 3, 4 January 1911, MS66/IV/7/2, DUA. This list of rules was presented to the foremen of Grimond’s Maxwelltown Works on 4 January 1911 and noted: “The foremen are requested to note particularly the following regulations which will be put in operation to-day.”

⁸⁹ *DDJFWU*, Letter book, letter to Grimond’s, 26 February 1912, GD/JF5/1, DCA.

⁹⁰ *J & A D Grimond*, List of rules, rule 12, 4 January 1911, MS66/IV/7/2, DUA.

visibility.”⁹¹ The jute workplace was not simply an enclosed site with clear entry and exit points, it was also internally partitioned as “[e]ach individual has his [sic] own place; and each place its individual.”⁹² “The principle of ‘enclosure’ is neither constant, nor indispensable, nor sufficient in disciplinary machinery” but Foucault explains, requires “the principle of elementary location or partitioning.”⁹³ In the workplace and in other disciplinary spaces, this process of partitioning was made possible and effective by a distinct hierarchy:

Discipline is an art of rank, a technique for the transformation of arrangements. It individualizes bodies by a location that does not give them a fixed position, but distributes them and circulates them in a network of relations.⁹⁴

Here I explore the details of this partitioning and ‘art of rank’ in the jute works and tie this into feminist theories about women’s workplace participation and location.

An early concern of feminists was to highlight and understand women’s low and restricted workplace participation. Feminists at first provided a critique of the orthodox economic explanations of workplace participation which, very simplistically, tended either to ignore gender entirely or work through essentialized understandings of woman through the process of occupational segregation. Hakim highlighted how women were segregated in the working world:

occupational segregation by gender exists when men and women do different kinds of work, so that one can speak of two separate labour

⁹¹ M. Hannah, “Space and the structuring of disciplinary power”, 171.

⁹² Foucault, *Discipline and punish*, 143.

⁹³ *Ibid.*, 143.

⁹⁴ *Ibid.*, 146.

forces, one male and one female, which are not in competition with each other for the same jobs.⁹⁵

Feminists have subsequently identified two types of occupational segregation in the industrial past: horizontal segregation (the concentration of women and men in different types of work) and vertical segregation (the concentration of men in higher grades and women in lower grades both within and between occupations and industries).⁹⁶

Such early work by feminists, especially work that attempted to locate when and where segregation took hold, merely 'added women into' or fitted them around traditional theorizing and failed to explain the causes of segregation or the gender identities they constituted. The historian Joan Scott articulated this failure:

if we write the history of women's work by gathering data that describe the activities, needs, interests, and culture of 'women workers', we leave in place the naturalised contrast and reify a fixed categorical difference between women and men. We start the story, in other words, too late, by uncritically accepting a gendered category (the 'woman worker') that itself needs investigation because its meaning is relative to its history.⁹⁷

In the work of this and other critiques of the essentialist underpinning of early feminist research into work, the processes of occupational sex-typing or stereotyping by which segregation was produced and persists began to be analysed. As Game and Pringle have recognised, occupational segregation had been produced by, and was productive of, a range of ideal, 'innate' and oppositionary attributes of masculinity and femininity. Women's work was usually deemed to be indoor work and considered to be 'lighter' than men's. It was reckoned to be clean, safe,

⁹⁵ C. Hakim, *Occupational segregation by sex* (Department of Employment Research Paper No.9, 1979), 1.

⁹⁶ However, Roberts has suggested that this concept is not particularly useful as in the textiles industry in Britain both men and women worked in spinning and weaving. E. Roberts, *Women's work: 1840-1940* (Cambridge: Cambridge University Press, 1995).

⁹⁷ J. Scott, *Gender and the politics of history* (New York: Columbia University Press, 1988) 47.

physically undemanding, often repetitive and boring labour that required dexterity rather than skill, that often had domestic associations, and tended to lack mobility, tying women to particular work stations. In contrast, men's work typically evoked images of the outdoors, of strength and physicality. It was deemed to be heavy, dirty, dangerous, often requiring skill and training, frequently highly technical, and commonly based on scientific or mechanical knowledge.⁹⁸ These characteristics were used to 'sex-type' or stereotype jobs. 'Sex-typing' is the process by which jobs are gendered, ascribed to one sex or the other. For Bradley, sex-typing and segregation are analytically separable, "although in practice they are almost always found in combination; in sociological terms, sex-typing can be seen as the ideological face of the structural process of segregation."⁹⁹ There is therefore a need to explore both occupational segregation (the way in which men and women are located in different job types), and occupational sex-typing (the process by which jobs are gendered).¹⁰⁰

Men and women do not compete with each other in the textiles trades, spinning and weaving proper being confined to women.¹⁰¹

In Dundee, occupational sex-typing and segregation were well-defined and a fairly rigid sexual division of labour existed. Women were employed in the preparing processes, the spinning flats, and in the power-loom weaving. Although in preparing and spinning departments a few men could share the same job as women, weaving was an almost exclusively female occupation.¹⁰² In contrast

⁹⁸ A. Game and R. Pringle, *Gender at work* (Sydney: George Allen and Unwin, 1983).

⁹⁹ H. Bradley, *Men's work, women's work* (London: Polity Press, 1989).

¹⁰⁰ Definitions taken from *ibid.* 9.

¹⁰¹ "Dundee's jute industry", *DYB* (for 1893) 170.

¹⁰² Despite these horizontal segregations, there is a need to recognise the "diversity and fluidity of the concept of 'women's work'." Gordon, *Women and the trade union movement*, 29. Although in Dundee women worked as both spinners and weavers, elsewhere, for example in Lancashire, it was men who continued to spin.

men's employment in the mills and factories was largely confined to a small number of 'skilled' tasks, such as beaming and dressing, and supervisory and maintenance tasks.¹⁰³ For women there were no opportunities for either horizontal or vertical mobility. The lack of horizontal mobility is widely recognized with discrete and separate groups of weavers and spinners developing.¹⁰⁴ The only supervisory role taken on by a woman was the position of 'Shifting Mistress' who had responsibility for the groups of shifters who were mainly young children.

However, while the early spinning of flax in the home had been the preserve of women, because, as the *DYB* described, "it required no ponderous machinery; the young mother could spin and watch her child, and the housewife could look to the affairs of her house", original flax weaving had been carried out generally by men.¹⁰⁵ Weaving only became a 'female' profession because male handloom weavers refused to adopt the powerloom, and a 'class' of women thought to be 'superior' to those engaged in spinning replaced them as powerloom weavers. It has also been suggested that the craft pride of the handloom weavers made them reluctant to work on a fibre seen as inferior to flax and that manufacturers, fearing the organisation of male workers, ensured that the new weavers would be female.¹⁰⁶

With a cheap fibre such as jute, the need to keep labour costs at a minimum was also put at a premium and led to the employment of lower paid women as both spinners and weavers. In 1905, the DSU published lists of the wages paid to men

¹⁰³ Although firms kept a policy of sex segregation, it was unwritten, with no mention of sex-specific jobs in any of the various jute company records.

¹⁰⁴ See chapter 5.

¹⁰⁵ "Female industries in Dundee", *DYB* (for 1884) 52.

and women, extracts of which are included in table 3 below. The table demonstrates that both vertical and horizontal segregation persisted, and were clearly articulated in wage differentials with 'men's jobs' paid at a higher rate.

Table 3: Employers Wages Table for Selected Jobs.

Women and Girls		Men and Boys	
	s. d.		s. d.
Mill		Mill	
Shifters	9 7	Shifters	9 5
Preparers	10 4	Rove Carters	12 1
Piecers	10 3	Preparers	10 4
Spinners	10 9	Batching House	17 1
Shifting Mistress	15 3		
Reelers, Winders & Warp	14 9	Factory	
Winders		Beamers and Dressers	18 9½
		Oilers and Weighers	14 10½
Factory		Calander Workers	20 0
Drawers	16 0	Mechanics	30 6
Weavers	13 7	Assistant Overseers	16 7
Calander Workers	10 9	Tenters	30 5
Sweepers	9 10	Overseers	31 0

Source: DSU, *Report on the housing and industrial conditions of the city* (Dundee, 1905) 58 & 60

All of Dundee's jute works operated a system of rules that codified vertical and horizontal segregation and a gendered labour hierarchy. The first rule from the management book of Ward Mill reads:

¹⁰⁶ See Gordon, *Women and the trade union movement*.

All workers shall be under the management and control of their respective foremen and chargehands, and shall be bound to obey their orders in everything relating to the carrying out of the work.¹⁰⁷

And each jute department had its own internal hierarchy. In the preparing department at Camperdown Works, for example, one overseer was in charge of ten workers employed in various preparing stages (table 4).

Table 4: No.2 Preparing Shed, Camperdown Works, 1860.

<u>Week ending 14th August 1860</u>		
<u>No. 2 Preparing</u>		
Overseer	David Mickie	1,1,-
Oiler	James Thorns	- 6,9
Rover	Mary Gilroy	- 7
Roving Shifter	Robert Craighead	- 4,5
Spreader	Mary Taylor	- 7,1
Spreader	Jane Kennedy	- 7,1
Front Spreading	Jessie Smith	- 6,3
Front 1st Drawing	Martha Russell	- 6
Front 2nd Drawing	Agnes Doherty	- 6
Front 3rd Drawing	Margaret Morrison	- 6,3
Weigher	Ann Lorr	- 6

Source: *Cox Brothers*, Wages book 1860, MS66/II/5/5, DUA.

Similarly, in the weaving sheds overseers and assistant overseers were at the apex of the hierarchy of authority¹⁰⁸, although it was the male 'tenters' who most frequently came into contact with the female weavers. One tenter would commonly oversee about 20 looms. Although his task was to set up the looms, tune them and tend to them when they broke down, he effectively worked as a sub-foremen who exercised authority over the weavers and controlled the pace at which they worked. These work groupings were central to the working of the production process as a whole, and workers were known according to their place

¹⁰⁷ *Don Brothers, Buist & Co. Ltd.*, printed copy of rules to be observed by workers in Dundee and Forfar Mills belonging to c.1930, MS100/I/9/6, DUA.

in a group rather than as an individual. In addition, all workers were under the watchful eye of a series of managers which at Camperdown Works in 1900 consisted of five General Managers, five Spinning Managers, one General Weaving Manager, three General and Carpet Managers, two Carpet Weaving Managers, two Calender Managers, and one Building and Engineering Manager.¹⁰⁹

Dundee's jute industry can be read through this top-down system with gendered bodies and identities producing gendered workplaces. However, as Linda McDowell shows in her work on merchant banking,

Rather than seeing the workplace as a site which men and women as fixed and finished products enter to become labour power, the ways in which the workplace or the organization play a key role in the constitution of subjects is becoming clear.¹¹⁰

So rather than simply mapping occupational segregation and recognizing its diverse spatial manifestations, McDowell emphasizes the work space itself. She signifies a move away from the geographies *of* work and towards the geographies *in* work – the processes at work within the workplace, the micro-geographies of work. She refers to the shift from a gender-in-organization model where organizations are seen as settings in which gendered actors behave, as gender neutral places which affect men and women differently because of their own different attributes, to the conceptualisation of organizations as producers of gendered meanings. As such, the workplace itself is socially constructed and gendered as either masculine or feminine. Both location and the physical construction of the workplace – its site and layout, external appearance and

¹⁰⁸ Gordon, *Women and the trade union movement*, 147.

¹⁰⁹ *Cox Brothers*, Wages book, MS66/II/5/2, DUA.

¹¹⁰ L. McDowell, *Capital culture: gender at work in the city* (Oxford: Blackwell, 1997) 12.

internal layout and the surrounding environment - affects and reflects the social construction of work and workers, and the relations of power, control and dominance that structure relations between them.

McDowell's ideas are useful for reading the nineteenth-century industrial workplace. In Dundee, the mills and factories were arranged so that a gaffer or foreman could look down the pass between the machines, review his section and be immediately aware of empty places (see plate 13). He could survey his section and instantly assess all presences and absences. In this way, workers were made visible as soon as they entered the works and their specific department. When absences were apparent, it was common for the respective gaffer to go out to the work gates where those seeking work would wait to fill the empty positions.¹¹¹ Sometimes, though, it was possible to subvert this gaze and interrupt the foreman's knowledge of who was in and out of place. Oral histories indicate that more astute workers would search for other ways into the works:

the door man was ey at the door if you were late you just ad to wait until he come back and opened it again. And getting in another door and they never knew if you were on or no. Used tae climb the dykes and climb the pailings as well.¹¹²

This visibility and knowledge of who was in and out of place could therefore be denied. Workers occasionally arrived at work on time to find the gaffer had already filled their place. This was most common after strikes and in 1912, James Gallacher and James McCarm who were both employed at Messrs Cox Bros, returned to work after a lockout to find their places had already been filled.¹¹³ Foreman could punish those involved in strike action, and were critical in the ad

¹¹¹ *DOHP*, tape 003, LS.

¹¹² *DOHP*, tape 026, LS.

¹¹³ *DDJFWU*, Management Committee Minutes, 16 April 1912, GD/JF/1/4, DCA.



Plate 13: Spinning and reeling floor, Ward Mills.

Source: J. Murray, *Dundee at work* (Wiltshire: Sutton Publishing, 1995) 35.

hoc hiring and firing process. As rule 11 at Don Brother's Buist noted, "Workers who are absent for other causes and without previously obtaining permission from their foremen, are liable to find their places have been filled when presenting themselves for re-employment."¹¹⁴

Conclusions

This chapter has worked through a set of concerns associated with traditional industrial geographers, providing details on the specificities of the location, built form and production process of Dundee's jute industry. However, it departs from this type of geography through the use of a particular set of ideas taken from cultural geography and organizational studies. My key argument is that the mills and factories of Dundee were sites not only of production that required a specific geography of machinery, but they were also sites of surveillance that required a set of disciplinary procedures. These workplace geographies have been primarily tracked through drawing together a range of sources from director's reports, company minutes, letter books and workplace manuals. It has been in the details (and often what appear to be the mundane details) of these sources, that the very workings and very specific geographies of the production process are found.

Through the use of Foucault's ideas, my work has diverged from those of other historians of the factory system. By drawing upon his notion of disciplinary power and his tentative references to the production process, I offer a new and very specific workplace geography. Through this reading, I have explored how both the external architecture and internal layout of the mills and factories

¹¹⁴ *Don Brothers, Buist & Co. Ltd.*, List of rules, rule 11, MS100/1/9/6, DUA.

channeled workers through points of visibility - points that together formed matrices of power/knowledge and a specific official workplace geography. In this way, all space within the jute works had to be accounted for.

A productive workforce depended upon a disciplined workforce - keeping a tight reign on worker, and ensuring what Foucault described as, “regulation through visibility”. Once within the works, and at their particular work stations, workers found themselves made visible in further ways - ways that suggest that the workplace itself was embedded with gendered meanings, meanings that worked through the micro-geographies of the workplace. Chapter 3 explores these micro-geographies of production, surveillance and discipline in greater detail.

Chapter 3

Micro-Geographies of Production, Power and Knowledge

In the last chapter I tried to show how the jute production process revolved around a series of departments and tasks that were intimately connected through the movement of jute, capital, and expertise. For the workers however, this mobility was restricted with their movements closely monitored. This is clearly demonstrated in a series of articles that appeared in the *People's Journal* in 1881 entitled 'Sketches of Life in a Jute Mill'. The articles tried to capture one man's job history, from his part-time work in the mill and half-time attendance at school as a child, to his appointment as mill manager. From his early days, the author recollected, "I had no conception of the meaning of these different processes, and had to content myself with understanding what my own particular work was."¹

However, he progresses:

As I had got familiar with all the processes within my own ken, my curiosity began to be excited as to the destinations of that same rove cart. But none of the lads who had charge of it would or could tell any more than that they took the full bobbins to the spinning flat, and brought back the empty ones. So I had to wait the unravelment of the mystery.²

Gradually the works began to open up to him and he embarked on what can be called a 'career'. He graduated from being an oiler in a spinning flat, a job which "led me over every part of this flat, and gradually made me aware of the whole process as well as the functions of the different parts of the machinery"³, to a mechanic which afforded him "occasional access to nearly every part of the work, so that I had opportunity to observe every process, and, indeed, sometimes

¹ "Sketches of life in a Dundee jute mill", *People's Journal*, 14 May 1881.

² *Ibid.*, 21 May 1881.

³ *Ibid.*, 28 May 1881.

had to study the principles of the machine I was employed upon in order to do my work correctly.”⁴ This story points to the gendering of the workplace and the vertical and horizontal segregation that I have touched on. As a man, the writer was able to rise steadily and progressively through the ranks of work and develop a career.⁵ It was as a man that he was able to move from department to department around the entire mill, but also to gain knowledge of the works and the production process in its entirety.

This chapter traces these gendered movements of people and knowledge from the micro-scale of the work section and department to the works as a whole. I aim to capture the very practices that ensured a productive workforce and the knowledge that these practices created, and their effects of power.

Movement of People

In contrast to the movements of foremen and managers, the largely female workforce was spatially contained and constrained. Women’s movement and knowledge beyond their stage of work was fettered and in some ways prohibited. This containment is highlighted by Rule 3 circulated in the Ward Mills owned by Don Brothers, Buist & Co. Ltd:

No workers are allowed in any part of the Works, other than that in which they are employed, except in the normal course of their duties, or to leave

⁴ *Ibid.*, 4 June 1881.

⁵ Although there were few openings for men in the jute works, those who were taken on could forge a career. As the *Courier* wrote in 1907: “Many highly paid managers in Dundee have started their career as poor boys in the ‘low mill’, and by careful attention to work and study have gradually risen in their profession.” *Dundee Courier*, 17 January 1907. However, a career was available to men, but not women in the jute mills and factories. This is apparent in the *People’s Journal* article where it was possible for the young boy who started as a shifter in the preparing department to move up through the ranks and become mill manager and author of the articles. The same opportunities were not available to women.

the Works during working hours without permission from the foreman (or his representative) in charge of the department.⁶

Workers, in particular the mass of women set apart in their particular work groups and work stations, were unable to move freely. Anyone breaking these rules was subjected to disciplinary procedures.

Rules were a central disciplinary component in the workplace, although, through the existing archives, it is difficult to know exactly how they were enforced and received. Certainly they did meet with some success as the differences and antagonisms between the spinners and weavers are widely acknowledged in Dundee's history. It was typical for each group to have never entered the other's workplace and to have little or no comprehension of or sympathy with the work each did. These antagonisms also extended beyond the workplace and spilled over into social networks.⁷ But as McCarthy affirms, "[s]ince rules do not define their own application, rule following is always to some degree discretionary, elaborative, ad hoc."⁸ Workers and the trade unions would often complain when copies of rules and regulations were not available to them, or if management did not stick to 'the rules'; if for example, they did not pay correct wages, give out the correct amount of material, or treat their workers fairly, workers would have lightening strikes and engage in other forms of resistance.⁹ The existence of rules became a workplace norm, with workers themselves expecting and wanting rules to be openly displayed.

⁶ *Don Brothers, Buist & Co. Ltd.*, List of rules, rule 3, MS 100/I/9/6, DUA.

⁷ See chapter 5.

⁸ T. McCarthy, "The critique of impure reason: Foucault and the Frankfurt School", in M. Kelly (ed.), *Critique and power: recasting the Foucault/Habermas debate* (Cambridge MA: MIT Press, 1994) 257.

However, Clegg suggests that: "All rules mean more than they may seem to say because all rules require contexts of interpretation."¹⁰ Despite the existence of formal rules, it is possible they were not the most rigid, important and powerful disciplinary strategy. In his work on the compound system in South Africa, Jonathon Crush emphasizes the importance of the system of 'informal' rules, which in many ways, he argues, became more important than formal rules.¹¹ The boundaries between workers and employers were often more fluid and negotiable than the official narrative (the written rules) acknowledged. The workplace operated through a number of 'informal' rules that workers had to glean as they went along. Workplace discipline worked through ad hoc understandings of what was reasonable within informal workplace relationships that had been forged over a number of years.¹²

The implementation of formal rules and the forging of informal rules highlights the role that foremen played on the shop floor. Foremen were expected to meet the demands of employers without jeopardising their own position by causing worker grievance. They were therefore in a delicate position - responsible to employers but still an employee. As Melling writes:

The supervisor is caught between the demands for maximum output and the need to maintain social relations with those under him, between accumulation and legitimation.¹³

Foremen themselves were under the disciplinary gaze of managers and directors.

⁹ See *DDJFWU*, Letter Books, GD/JF5, DCA.

¹⁰ S. Clegg, "Power relations and the constitution of the resistant subject", in J. Jermier, D. Knights and W. Nord, *Resistance and power in organizations* (London: MIT Press, 1994) 274-325, 281.

¹¹ See Crush, "Scripting the compound".

¹² See chapter 4.

Foremen enforced rules, but were also subject to rules. In Grimond's Maxwelltown Works, the list of rules for foremen to implement and observe included:

- All workers running out without permission or other irregularities to be at once reported to the manager
- Workers leaving the employment of the firm are to be at once reported to the lodge keeper, that their names may be struck off the time book
- The foreman will be held responsible for workers belonging to their own or from any part of the factory loitering in the department over which they have control.¹⁴

Foremen were to keep strict control over the movement of all those under their authority. As patriarchal figures they were to be of "excellent character"¹⁵ and of "outstanding merit in every sense of the word."¹⁶ They were responsible for the workers in their particular section and were obliged to constantly report back to management. In this way, they were under their own form of self-surveillance, and it was in their interests to ensure that the rules, both formal and informal, were adhered to, otherwise they faced the wrath of both the workers and the management.¹⁷

Although some of the rules proved functional to the production process,¹⁸ Zygmunt Bauman suggests that it is difficult to establish whether they were really necessary.¹⁹ Here, Foucault's notion of dressage is useful.²⁰ Labour in its

¹³ J. Melling, "'Non-commissioned officers': British employers and their supervisory workers, 1880-1920", *Social History*, 5 (1980) 193-95, 191.

¹⁴ *J & A D Grimond*, List of rules for foreman at Maxwelltown Works, Wednesday 4 June 1911, MS66/IV/7/2, DUA.

¹⁵ *Cox Brothers*, Private Letter Books, MS66/II/2/1, DUA.

¹⁶ *Dundee Courier*, 17 January 1907.

¹⁷ The DDJFWU would write to employers to complain if foremen and managers had been acting unfairly. See *DDJFWU*, Letter Books, GD/JF 5, DCA.

¹⁸ This is more in line with Weber's understanding of power as intentional. M. Weber, *Economy and society: an outline of interpretive sociology*, (Berkeley: University of California Press, 1978).

¹⁹ Z. Bauman, *Memories of class: the pre-history and after-life of class*, (London: Routledge and Kegan Paul, 1982) 42.

dressage sense refers not to aspects of work which were imperative to the production process but to “[n]on-productive, non-utilitarian and unnatural behaviour for the satisfaction of the controller and as a public display of compliance, obedience to discipline.”²¹ Some of the rules restricting workplace movements fell into this category, by ensuring an ordered workplace without impacting directly on the efficiency of the production process itself.

The relationship between foremen and workers differed greatly from works to works and was not necessarily antagonistic. Some foremen were popular with their workers and were held in high regard. For example, Ellen Johnston wrote the following lines to James Dorwood, a power-loom foreman at Chapelshade Works, on the occasion of the presentation of a sofa to him by the workers “as a token of gratitude and respect”:

Believe us, James Dorwood, we ne'er can forget thee -
They kindness to us in the dear Chapelshade,
And here in the Thistle Hall this night we've met thee,
Now our hearts' grateful thanks before thee we spread.

Thy skill as a foreman has gained admiration,
Thou hast aimed at our welfare in each daily plan;
O long may you fill that same situation,
We never would wish for a better foreman.²²

In other works however, these relations were more acrimonious, as the DYB for 1893 highlighted:

These men, it appears, can make “the flat” pleasant or otherwise for their workers, and unknown to the managers divide the work unequally, so that one girl who is a favourite can earn perhaps 3s a week more than her

²⁰ Foucault suggests that labour has three functions: the productive, the symbolic and dressage. M. Foucault, “The eye of power”, in C. Gordon, (ed.), *Michael Foucault: Power/Knowledge*, (Harvester: London, 1977 (1980 edition)), 146-165,161.

²¹ Jackson and Carter, “Labour as dressage”, 54.

²² The presentation took place in Thistle Hall, Union Street on the 7 February 1866. See E. Johnston, *Autobiography, poems and songs of Ellen Johnston the 'Factory Girl'* (Glasgow: William Love, 1869).

neighbour. Sometimes they bully the workers for not turning out more cloth. As the girls are piece-workers, naturally they work as hard as possible. The charge is surely absurd when over-production is the reason assigned for short time. The power of engaging and dismissing rest with these men, and often they tyrannise over their workers in an arbitrary and rough fashion.²³

Although some firms thrived on maintaining strong relations with employees and prided themselves on keeping a consistent workforce, in others, any discrepancies and unfairness on the part of foremen and management was quickly recognised by workers and often translated into disquiet and resistance.²⁴

Surveillance can suggest a surveyor-surveyed duality between employers and employees, but for Foucault it was “organised as a multiple, automatic and anonymous power”,

for although surveillance rests on individuals, its functioning is that of a network of relations from top to bottom, but also to a certain extent from the bottom to top and laterally; this network ‘holds’ the whole together and traverses it in its entirety with effects of power that derive from one another: supervisors, perpetually supervised.²⁵

With rules for both workers and foreman, as well as the negotiation of informal rules, this network of power worked to discipline all those within the mills and factories. In this relational conceptualisation of power, there is no hidden space, no ‘zone of shade’ in which workers and foreman could hide. To borrow again from Foucault, the rule-governed space of the jute factory “constantly supervises the very individuals who are entrusted with the task of supervising.”²⁶

In addition to the knowledge gleaned through these workplace movements, detailed descriptions of the various production processes, and their specific

²³ “Women’s work and wages in Dundee”, *DYB* (for 1893) 176.

²⁴ See chapter 4.

²⁵ Foucault, *Discipline and punish*, 176-77.

machinery and management, were increasingly revealed to foremen, overseers, and managers through a number of 'scientific' manuals. For example, the preface to Peter Sharp's handbook reads:

It may without prejudice be said that the majority of our overseers know only what on the subject they can glean from conversation with those who have acquired the necessary knowledge by years of labour. Oral information on any subject, especially if difficult to obtain, must of necessity be more or less imperfect, since it requires patient and close study to acquire a thorough knowledge of the various parts of the machinery, their relations to each other, the points of dependence of the several parts, tabulated calculations, rules for determining speeds, & c. It was the consideration of these facts that prompted me to come forward with the hints contained in these pages, which, however imperfect, will, I trust, be of service to those who may have to struggle through the technical difficulties of our trade.²⁷

The increased use of the 'scientific' in the production process changed the job of the foremen, providing them with new points of reference. Technical improvements and the spread of rationalized management techniques meant that the passing of oral information and ad hoc learning were overtaken by a range of manuals from which the male members of the workforce could learn more fully and scientifically the workings of the production process.²⁸ These new textual spaces of knowledge were complimented by the opening of a Technical Institute at UCD, which provided a "thorough elementary training" in the scientific principles of the operations of the trade:

What the technical institute can supply is the ability to detect, understand, appreciate, and apply the best practice when we see it, and the ability ourselves to improve the practice which has been transmitted to use.²⁹

Through movement round the workplace, knowledge had been acquired in an immediate and visual form. With these changes however, this knowledge was beginning to retreat to specified 'places of learning' – or what geographers now

²⁶ Foucault, *Discipline and punish*, 177.

²⁷ P. Sharp, *Flax, tow & jute spinning: a handbook* (Dundee: James P Matthew & Co., 1882).

²⁸ See Melling, "Non-commissioned officers".

call 'spaces of knowledge' - at a greater distance from the mass of women workers.

Movements of Knowledge and Flows of Communication

Central to these microgeographies of the workplace were networks and flows of knowledge and communication between and amongst workers, foremen, managers and directors. As Rapoport remarks:

[T]he specific organisation of space, meaning and time, reflect and influence the organisation of communication. Who communicates with whom, under what conditions, how, when, where and in what context, is an important way in which built environments and social organisation are related.³⁰

In parallel with the movements of people, the jute industry both encouraged and hindered flows of communication and movements of knowledge. As the rules discussed above have demonstrated, communications amongst workers themselves were hindered by the constant presence of a foreman, and communications across work sections were prevented by segregation.³¹ However, Rule 17 at Don Brothers, Buist and Co., suggested that, "[a]ll cases of misunderstanding between Foremen, Chargehands and workers must be referred to the Manager."³² This suggests an open route of communication from workers to managers. However, this was often not put into practise as communications between workers, managers and directors were curtailed. In 1910, the DDJFWU wrote to one works to complain that this route of communication had been blocked:

²⁹ "University College Dundee", *DYB* (for 1883) 74.

³⁰ A. Rapoport, "Vernacular architecture and the cultural determinants of form", in A. King (ed.), *Buildings and society: essays on the social development of the built environment* (London: Routledge and Kegan Paul, 1980) 283-305.

³¹ However, this could be subverted as chapter 4 demonstrates.

³² *Don Brothers Buist & Co., Rules.*

The girls asked yesterday afternoon to get an interview with you, but were told that you would not receive them. This is not in accordance with your letter to me of the 18th March in which you say "any employee has perfect freedom to bring any matter upon which he considers himself aggrieved to the notice of the Directors through the proper channels." I presume that although you use the masculine gender you also include the feminine. Apparently the "proper channels" you had in mind are blocked.³³

Many workers considered the foreman an obstruction to getting their complaints heard directly by management, and suspected that foreman either did not take their complaints to management, or if they did, that communications did not arrive in tact, being either buffered or filtered en route.³⁴

Reverse flows of information from management and directors down to workers were critical and as demonstrated, came primarily through the rule book. Again, as the rules for Don Brothers, Buist and Co., stipulated, "[t]he Foreman must ensure that every person under his charge understands the details of his or her pay."³⁵ Yet such information at times remained unintelligible to the workers. In 1907 the DDJFWU commented in its minute book:

Mr. Sime reported that a cop winder employed by Messrs James Paterson & Co, Lawside Works had visited the office and complained that a book containing printed form for the return of work done was given to the workers employed by this firm and that the form was unintelligible to the winders who therefore could not tell whether they were receiving the wages due to them or not. The Committee instructed the secretary to draw the attention of the factory inspector to the matter.³⁶

This may have been a deliberate ploy by management to confuse workers. In other instances, notices were posted but blatantly infringed, as for example, the Royal Commission on the employment of women found:

In the majority of the mills visited I found notices posted throughout the works prohibiting this practice, but the workers state that they are

³³ *DDJFWU*, Letter Books, 4 May 1910, GD/JF5, DCA.

³⁴ See *DDJFWU*, Letter Books, GD/JF5, DCA.

³⁵ *Don Brothers, Buist & Co. Ltd.*, Rules.

³⁶ *DDJFWU*, Management Committee Minutes, 18 June 07, GD/JF1/4, DCA.

practically obliged to clean their machines while in motion, as the time allowed on Saturdays is not sufficient to keep them in proper order, and that if allowed to run too long there is a danger of the waste which gathers on the frames taking fire through friction

On asking employers about this practice, she replied, "I am disposed to think that it is practised to some extent but without the knowledge or approval of the employers."³⁷ Many communication flows were arbitrary and varied from works to works, from foreman to foreman, and the knowledges that they formed varied across the different personnel in the mills and factories.

As these communications were restricted, communications between foremen, management and directors were encouraged and actively sought. Foremen were to inform managers of workers misbehaving and leaving their places, and were to act upon this information.³⁸ The communications and knowledges they produced formed an important component in the working of each individual, section and company as a whole. Knowledge and communication formed an analytical space through which the workplace and the workers were monitored at the macro- and micro-scale (see below).

However important the movement of knowledge onwards and upwards in the workplace may have been, the movement of knowledge beyond the workplace was either entirely forbidden or carefully managed so that jute works were a stage on which only select scenes could be observed. In 1904, Cox Brothers offered Mr. Boland a position at the Camperdown Works on the following condition:

It is understood that, not only when you are assisting us in the management of our business, but after your notice from the same, that you

³⁷ Royal Commission on Labour, *The employment of women*.

³⁸ *J & A D Grimond, Rules*.

will not reveal or describe anything you may have initiated or seen in our works.³⁹

Companies operated in a secretive manner, protecting their own knowledge and permitting only official knowledges to extend beyond the workplace. This was demonstrated when visitors were admitted into the works. Although visitors would be given access,⁴⁰ only orchestrated and guided visits were allowed, ensuring the reproduction of official knowledges. For example, the Visitors Book at Baxter Brothers' Works stipulated a specific set of instructions for visitors entering the Works:

Walk slowly through the following Departments but no other without Special Orders.

Enter by Upper Dens Gate, visit 70 and 130HP Engine Houses going in and coming out by door of 70HP Engine, visit I & L flats then pass through M flat & down by East Stair. Go to factory by way of Lower Calender, visit Packing, Stamping & Lapping Rooms; walk up main pass of South Weaving Shed & on to Picking Room & up to the Calender.

From the Calender proceed to Foundry by way of ponds, visit Erecting Shop, Blacksmith Foundry & Joiners.

If the School is open visit it.

The Guide to offer no information only answering questions politely

All visitors must enter their names in Visitors Book kept by Porter at the Princes Street Office.⁴¹

Visits included one from John Lee Williams, a journalist for the *Gentleman's Journal* in October 1912, and in the article that proceeded his visit he remarked:

We failed to see the wan "slaves", of whom certain writers, from their imaginations have given the world such pathetic descriptions. What we saw at Messrs Baxter's Mills were hundreds of neatly-dressed and apparently well-nourished people, on whose faces we read of comfort and content. The writer of this article has always been keenly interested in conditions of labour and in workpeople, and it was a delight to him to note the outward and visible signs of healthy, happy work.⁴²

³⁹ *Cox Brothers*, Minute Books, 20 November 1896, letter to Mr. Borland in Leeds offering him employment, MS66/II/1, DUA.

⁴⁰ Sometimes visitors were encouraged as chapter 1 suggested.

⁴¹ *Baxter Brothers*, Visitor Book 1866-1927, "Introduction for showing Visitors through the Works", 4 September 1901, MS11/5/6, DUA.

⁴² *Gentleman's Journal* 1913.

As stated earlier, the ‘knowledge’ that informed the articles in the array of middle-class journals such as the *Gentleman’s Journal* was not neutral. It had been sanctioned by management and constituted an official knowledge with only ‘official’ sections of the workplace opened to scrutiny. Despite the appearance of completeness and thoroughness, knowledge was cosmetic and partial, and such partiality stemmed from the fact that the geography of movement was subject to close control.

Knowing the Works and the Workers

A ‘power of writing’ was constituted as an essential part in the mechanism of discipline.⁴³

Foucault showed how discipline “organizes an analytical space”⁴⁴ that made people ‘objects’ of information and caught them in a complex network of reporting, recording, writing, and knowledge construction. As he explained in relation to the Oberkampf factory in Jouy:

By walking up and down the central aisle of the workshop, it was possible to carry out a supervision that was both general and individual: to observe the worker’s presence and application, and the quality of his [sic] work; to compare workers with one another, to classify them according to skill and speed; to follow the successive stages of the production process.⁴⁵

This section pursues these observations. It explores how the workplace as a whole was surveyed and understood, and how this necessitated a scrutinizing of individuals at a very micro level. I will suggest that this jumping of scales, between the macro-structural and the micro-bodily, enabled a ‘complete’ surveillance of the production process to be performed.

⁴³ Foucault, *Discipline and punish*, 189.

⁴⁴ *Ibid.*, 143.

⁴⁵ *Ibid.*, 145.

I will start to explore this process of 'knowing' by considering how discipline and surveillance hinged on the creation of 'productive' and 'docile' working bodies. Foucault's observation that "[d]iscipline defines each of the relations that the body must have with the object that it manipulates"⁴⁶ is particularly relevant for research into the workplace. Workers were individually attached to specific pieces of machinery and had to learn a certain set of skills and bodily maneuvers in order to work efficiently. In c.1960, the Victoria Spinning Company published a training manual for jute weaving. It split the process of weaving into a number of operational stages with each given a target time, method and list of "special points". One such special point read: "It is essential to get the rhythm of the loom prior to operating the handle."⁴⁷ Every movement and position of the body was stipulated to create a body inclined to the movements and operational needs of the machinery. To be productive, the body had to be made docile and amenable to the machinery it was working.

Foucault noted that,

it is largely as a force of production that the body is invested with relations of power and domination; but, on the other hand, its constitution as labour power is possible only if it is caught up in a system of subjection; the body becomes a useful force only if it is both a productive body and a subjected body.⁴⁸

It was in the workplace more than any other institutional form that this docile-productive nexus was most visible through the production process. Foucault's ideas here are very close to those of Marx. The manipulation of the body through the production process was one of Marx's central concerns. He considered how

⁴⁶ *Ibid.*, 153.

⁴⁷ *Victoria Spinning Co. Dundee*, Training Manual c.1960, GD/Mus 105/4/1, DCA. Although no earlier written example can be found, it is to be deduced that such 'training' was provided on a more informal self-learning basis on entry into the factory.

workers had to learn to adapt their own movements to the “uniform and unceasing motion of an automation.” Marx suggested that workers became both anonymous and dehumanised as “the motion of the whole factory proceeds not from the worker but from the machinery”, and thus “the working personnel can continually be replaced without any interruption in the labour process.”⁴⁹ Anticipating some of Foucault’s interests, Marx was concerned with the ways in which the ‘docile body’ was mutilated and disciplined over time and through space. Yet Foucault develops this aspect of Marx’s analysis of the factory system by looking at a range of specific practices, and the specific micro-geographies and relations of power through which they are produced. As Clegg puts it:

Foucault provides us with a detailed history of some of the power practices and techniques which have characterized capitalist modernity but he does so in a non-reductive way. Compared with some Marxist accounts of similar events, the discussion is all the better for that. The historical record which Foucault produces stands as a corrective.⁵⁰

Rather than subsuming these practices through notions of capitalism and class, Foucault tried to capture in detail the movements and practices through which the productive-docile body was produced.

This ‘body-object’ articulation speaks to the very palpable machine-discipline experienced by the workers. One way of reading this machine discipline is through the regularity of accidents in the workplace. As Stein notes:

Accidents were unequivocal demonstrations of the machine’s speed and power, and of the power the machine’s owners had to set the work pace. Accidents taught labour efficiency by placing tremendous stress on workers to keep hand and body movements coordinated with the machine.⁵¹

⁴⁸ Foucault, *Discipline and punish*, 126.

⁴⁹ Marx, *Capital*, 260.

⁵⁰ Clegg, *Frameworks of power*, 16.

⁵¹ Stein, “Time and space”, 292.

The jute industry was known as one of the most dangerous of the textile trades. In a study of the history of industrial injuries, Leah Leneman draws on the injuries incurred at Bowbridge Works over three five-year periods.⁵² The main injuries that workers incurred were cuts and bruises and table 4 shows their main cause.

Table 5: Causes of Cuts and Bruises at Bowbridge Works, Dundee.

	1897-1901		1909-13		1920-24	
	No.	%	No.	%	No.	%
Machinery	124	53.4	129	51.6	79	50.3
Fell	26	11.2	35	14.0	20	12.7
Heavy Object	25	10.8	28	11.2	17	10.8
Hit by Cart	8	3.4	11	4.4	9	5.7
Miscellaneous	49	21.1	47	18.8	32	20.4
Total	232	100	250	100	157	100

Source: L. Lenman, "Lives and limbs: company records as a source for the history of industrial injuries", *The Society for the Social History of Medicine*, 6 (1993), 405-427.

In all three periods, machinery was responsible for over half of the injuries, and the catching of hands in moving machinery was the most common type of accident. The report by the Royal Commission on the employment of women also recorded accidents in a number of Dundee works between November 1891 to July 1892. Again, this inquiry showed that accidents caused by the operation of machinery were common, with many caused by the attempts to clean machinery while it was still in motion.⁵³ Although this was a forbidden, it was a common practice, enabling production to continue and ensuring that workers who were paid by piece-rate would not lose out on wages.

⁵² L. Leneman, "Lives and limbs: company records as a source for the history of industrial injuries", *The Society for the Social History of Medicine*, 6 (1993), 405-427.

⁵³ Royal Commission on Labour, *The employment of women*.

Another way of thinking about this net of workplace discipline and surveillance is through what Foucault described as the power of the examination. He wrote that:

The examination that places individuals in a field of surveillance also situates them in a network of writing; it engages them in a whole mass of documents that capture and fix them.⁵⁴

In the jute works, it was the foreman's task to assess all absences and presences and report upon irregularities, and this level of general surveillance was intensified during certain periods. In March 1916, for example, after the Joint Workers' Committee request for an increase in wages of 10 per cent was rejected, there was a strike of mill and factory workers at the Camperdown Works. The works manager kept a daily record of the number of workers in place at 6am, 10am and 3pm, and made a note of the names of tenters absent (see plate 14). As the number of tenters working in Camperdown was a fraction of the 5000 strong workforce, they could easily be identified in contrast to the largely anonymous female workforce who could only be monitored through a rough count. This was also a reflection on the disposability of particular sections of the workforce. Tenters, as a more highly 'skilled' group, were less disposable than weavers and spinners, who, it was believed, could be easily replaced.⁵⁵ It was common too for managers to keep detailed accounts of the number of workers absent after various holidays.⁵⁶ Such processes of knowledge gathering and accumulation enabled a wide number of diverse work spaces to be drawn together. Forming an analytical space, the recording of this information became a point from which the managers' gaze could be cast over the entire workplace.

⁵⁴ Foucault, *Discipline and punish*, 189.

⁵⁵ See *Cox Brothers*, Notebook, 1894- , MS66/II/9/3, DUA.

⁵⁶ See *Baxter Brothers*, Notebook 1895-1957, MS11/5/5(20) and *Cox Brothers*, *ibid.*

1916	27/3/16			28/3/16			29/3/16			30/3/16			31/3/16		
	L	10	3	L	10	3	L	10	3	L	10	3	L	10	3
Testers	25	26	27	26	26	26	26	26	26	26	26	26	26	26	26
Weavers (Looms)	70	228	366	410	493	505	516	555	320	357	330	550	424	412	412
Weft Winders	19	70	70	70	75	75	75	75	75	75	75	75	75	75	75
Warp "	7	10	13	28	29	29	30	34	35	36	36	30	32	32	32
Beaming	8	8	8	8	8	8	7	7	7	7	7	7	7	7	7
Dressing	X	10	10	10	10	10	8	7	7	7	8	8	7	7	7
Warping	3	7	6	10	9	9	9	9	9	10	10	10	10	10	10
Drawing	4	6	6	8	8	8	8	8	10	11	10	10	9	10	10
Sackweaving	2	4	4	13	15	20	22	25	26	26	26	26	27	27	29
Cloth Inspecting	6	8	8	8	8	8	9	9	9	9	9	9	9	9	9
Carpet Printing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

Plate 14: Strike monitoring at Camperdown Works.

Source: Cox Brothers, Notebook 1894-, MS66/II/9/3, DUA.

The same notebooks were also used to comment more directly on the performance of the machinery and the efficiency of production. At Camperdown Works, the manager recorded the breakdown of machinery, the time of breakage, the number of looms left standing and the length of time they remained off. In addition, he recorded the results of a 'weaving test' where loom number, name of weaver, loom width, descriptions of cloth, number of cuts, yards of yarn and cloth, shots, total hours, average hours per cut, and speed of loom were all scrutinised.⁵⁷ These examples of record keeping point to the importance of formative accounting processes in the work place. A minute in the Cox Brothers book for 1895 notes the following:

The rearrangement of the work in the Lochee office was discussed with Mr Dow; and Mr Methven and Mr Scroggie were instructed to look out for a suitable person to act as accountant at the works with the view of rendering information readily accessible to the management and providing data for ascertaining the costs of processes and results of the different departments separately.⁵⁸

Rationalized management techniques appeared in the workplace from the 1880s onwards⁵⁹ and included the sphere of cost accounting, office organization and clerical administration, as well as technical planning and the deployment of labour.⁶⁰ As the above quote demonstrates, companies were keen to appoint accountants to assess the workings of the firm. This process of accounting and auditing acted as a kind conceptual panopticon across the workplace; anyone could judge, at a glance, how the entire establishment was working. And it was through these procedures that the directors' own fate became tied to the

⁵⁷ *Cox Brothers, ibid.*

⁵⁸ *Cox Brothers*, Minute Book, 16 July 1895, MS 66/11/1/1, DUA.

⁵⁹ Through a genealogy of managerial practices, Hoskins suggests that "the practices of administrative coordination are precisely those of writing, examining and grading, translated into the economic arena from other sites where 'disciplinarity' in a double sense, was already experienced." K. Hoskins, "Examining accounts and accounting for management: inverting understandings of 'the economic'", in McKinlay and Starkey, *Foucault, management and organization theory*, 93-110, 103.

production process; the success, or otherwise, of the firm made visible by such procedures reflected directly on him.⁶¹ However, as Hopwood suggests:

Accounting, is not a passive instrument of technical administration, a neutral means for revealing the pre-given aspects of organizational functioning. Instead its origins are seen to reside in the exercising of social power both within and between organizations.⁶²

The history of accounting has provided fertile ground for applying Foucault's ideas about discipline and visibility and, Hoskin has argued, what we need to dwell on "is how these practices produce new possible relations between forms of knowledge and the exercise of power."⁶³ The surveillance of the production process through new forms of writing and recording – principally accounting and writing - had the potential to open up every section, workgroup, overseer and worker to scrutiny, and inculcate the whole production process in a new written knowledge that had effects of social power.

At Grimonds Work's, the manager compared the average spin for five week periods in 1905, 1914, and 1919 (see plate 15), grouping the workforce by foreman. This process of comparison would have had a double bind. Firstly, and so not to be seen as the least productive, it put pressure upon the foremen to produce a good set of results. In turn, as each foreman took responsibility for his group's performance, he would put pressure on the individuals in his work group to improve their efficiency.⁶⁴ This process of chronicling the performance of various sections and groups enabled a 'control of activity', and constructed a

⁶⁰ Melling, "Non-commissioned officers", 194.

⁶¹ Foucault, *Discipline and punish*, 204.

⁶² A. Hopwood, "The archaeology of accounting systems", *Accounting, Organization and Society*, 12 (1987) 207-34.

⁶³ Hoskin, "Examining accounts and accounting for management", 95.

⁶⁴ *J & A D Grimond*, Comparison of average spin for five week periods 1905, 1914, and 1919, MS66/IV/8/33, DUA. *Don & Low (Holdings) Ltd.*, also kept a notebook with production comparisons across different departments between 1907-1930, MS100/1/6/2, DUA.

Foreman	Average Spin for 5 full Weeks ending 26th October 1905						Average Spin for 5 full Weeks ending 26th March 1914.						Average Spin for 5 full Weeks ending 27th March 1919.						
	Spindles.	Average Actual Spin. 55 Hrs.	Spis. per Spindle.	Average Size. #.	Spin 8 lbs. Basis.	Spis. per Spindle.	Spindles.	Average Actual Spin. 55 Hrs.	Spis. per Spindle.	Average Size. #.	Spin 8 lbs. Basis.	Spis. per Spindle.	Average Actual Spin. 55 Hrs.	Spis. per Spindle.	Average Size. #.	Spin 8 lbs. Basis.	Spis. per Spindle.	Spis. per Spindle.	Spis. per Spindle.
Constable.	1,488	5,833.	3.92.	7.14	7,258	4.88	1,488	6,025.	4.05	7.29	7,844	5.27	4,931.	3.31.	7.39.	6,870.	4.62	3.44	5.18
McManis.	1,240	5,050.	4.07.	8.28	5,564	4.49	1,240	4,839.	3.74	7.78	5,125	4.13	3,582.	2.89	7.04	5,143	4.15	3.12	4.36
Froser.	1,230	4,254.	3.46	15.94	5,121	4.16	1,232	4,326.	3.43	19.9	3,905	3.17	3,659	2.97	17.24	3,565	2.89	3.22	3.18
Jeffrey.	1,456	5,840.	4.01	8.04.	6,271	4.31	1,456	5,894.	4.05	8.58	7,429.	5.1	4,475	3.07	8.18	5,499	3.78	3.38	4.16
Miller.	1,220	5,115.	4.19	8.11	5,328.	4.37	1,220	4,877.	4.	8.51	5,998	4.92	3,718	3.05	8.01	4,920	4.03	3.55	4.63
Wille.	1,330	5,461.	4.11	8.4	5,996.	4.5	1,332	5,326.	4.	9.09	5,936	4.46	3,980	2.99	9.32	4,939	3.71	3.29	4.08
Nicoll.	1,434	4,930.	3.37	8.37	6,060	4.23	1,434	5,167	3.6	8.45	6,069.	4.23	4,320	3.02	8.12	5,490	3.83	3.31	4.21
Lindsay.	1,574	6,263.	3.98	8.73	7,124	4.52	1,574	5,864	3.73	9.07	6,792.	4.32	4,407	2.85	9.17	5,751	3.65	3.13	4.81
Forrester. (Colman 1919)	1,560	6,301.	4.04.	9.98.	7,201.	4.61	1,560	5,624.	3.6	10.21	6,456.	4.14	3,501	2.84	11.35	4,059	2.6	3.45	2.86

Plate 15: Comparison of average spin for five-week periods in 1905, 1914, and 1919.
Source: Don & Low (Holdings) Ltd., MS66/IV/8/33, DUA.

particular geography of workplace production. As the mill manager, writing in the *People's Journal* remembered:

Such longitudinal sections of work must be arranged and studied by the general manager, who has opportunity to trace the process of each from beginning to end, and to balance the supply and treatment. The foremen of the different departments, again, can only see a transverse section of the work as it passes through their hands, and judge of its condition at their stage of the work.

From this he concluded: “[I]ong familiarity and a native fitness for the work enable a good manger to comprehend both longitudinal and transverse sections, and to bind all the different departments together.”⁶⁵ This was enabled through the conceptual space which was marked out through the process of accounting.

[T]he Panopticon was also a laboratory; it could be used as a machine to carry out experiments.⁶⁶

As well as recording output over space and time, accounting was a means of cross-referencing the productivity of various types of machinery. Examples of this come from the Cox Brothers managers notebook which recorded the differences in production between ‘old’ and ‘new’ looms in order to discover which was the most effective.⁶⁷ Similarly, its minute book for 1914 states:

[I]t was further resolved that jockey cylinders should not be introduced, in the meantime, into No. 7 Spinning Flat, as it was deemed advisable to keep some spindles driven by endless bands for the purpose of comparison of results.⁶⁸

This process of comparison was crucial to ensure that the works were operating at optimum capacity, again demonstrating the continued strive for maximum profit.

Purposely misquoting Foucault, Keith Hoskin writes:

⁶⁵ *People's Journal*, 21 May 1881.

⁶⁶ Foucault, *Discipline and punish*, 203.

⁶⁷ *Cox Brothers*, Notebook, 1894- , MS66/II/9/3, DUA.

Management is possible only when the strength of a firm is known... The firm's capacity and the means to enlarge it must be known. The strength and capacity of other firms, rivals of my own firm, must also be known... A certain specific knowledge is necessary: concrete, precise and measured knowledge as to the firm's strength. The art of managing ...is intimately bound up with the development of what is, from this moment, nameable as accounting.⁶⁹

'Knowing' the works and the workers were not neutral economic procedures that recorded an industrial process and reality. They were economically and socially constructed practices, and webs of power/knowledge that made the works transparent. Constant recording created a conceptual space, a space in which jute works could be viewed in their entirety. A particular knowledge space that was detached from and inaccessible to the workers was created and it had significant material consequences for the workers themselves – on what their bodies did and were meant to do, on accidents and injuries and on the types of practices in which they became engaged and objectified.

Directors' Space

[T]hese are more than economic spaces and they are spaces of more than economic power. They are spaces expressive of class distinction, space exultant with the supremacy of Reason, spaces which express in their very nature deeply embedded assumptions about masculinity and gender.⁷⁰

I have been suggesting that the processes of accounting and documentation in the jute industry constructed the workplace as an economic space and site of practical reason. I now say something about the links between these processes of knowledge production, subject-formation, and the creation of subjectivities that extended far beyond the workplace itself.

⁶⁸ *Cox Brothers*, Minute Books, 2 February 1914, MS66/II/2, DUA.

⁶⁹ Hoskin, "Examining accounts and accounting for management", 93.

⁷⁰ D. Massey, "Economic/non-economic" in Lee and Wills, *Geographies of economies*, 27-36, 35. Massey's research refers to high-technology workplaces as a classic space of economic geography.

The workplace has long been treated as the classic space of economic geography - of production, consumption and exchange. Only recently has it been opened up as a site of cultural geography and, according to Massey, “[t]o call it [the workplace] an economic space alone is seriously to diminish both the complexity of the processes of which it is a product and the range of social identities and structures for which it stands.”⁷¹ Following Massey, I now want to highlight how the processes of ‘knowing the jute works and the workers’ that I have been tracking were exercises in the creation of masculinized knowledges. The vertical segregation that existed in the jute works ensured that men occupied the “exclusive spaces marking out the monopolizers of knowledge”, and as Massey continues, “masculinization, elitism and exclusivity consolidated around the social monopolization of the production (and ratification) of ‘truth’.”⁷² Although the jute mills and factories were comprised largely of women employed in ‘women’s jobs’, women were excluded from the processes of knowledge production and accumulation.

As I suggested in the introduction, it has been a central tenet of feminist theory and practice that we need to deconstruct and demasculinize these processes of knowledge production; we need to challenge knowledge that has been constructed and consumed as natural and neutral. Masculine subjectivity has been connected to powerful claims to know. As Gillian Rose stipulates, since the seventeenth century rational knowledge has been defined by its independence from the social position of the knower. Worked through the binary oppositions of mind and body, and the masculine and feminine, the masculinist interpretation of

⁷¹ *Ibid.*, 35.

⁷² *Ibid.*, 32.

space as singular, and as something to be known, mapped out and accounted for, has prevailed.⁷³ An intellectual space was constructed in which the work of the head was detached from and placed in opposition to the work of the hands. In the mills and factories of Dundee, processes of gathering data and accounting were produced through, and reproduced, such masculinist ideas of managers and directors as detached, disembodied surveyors and purveyors of objectivity. The records I have been discussing – notebooks, accounts, minutes of directors meetings – can be thought of as imaginary points of control and comprehension that created masculinist representations of the workers and the works. The detached and objective economic space of the mill and factory was very much a masculine space of knowledge construction; a space exclusive to men, and through which the mind-body dualism was articulated and reproduced.

These knowledge spaces were made inaccessible to the workers in part through the deployment of esoteric styles of writing. Minute books, ledgers, profit and loss accounts, and so forth, were written in a ‘proper’ scientific manner. With a specific layout and terminology they were constructed as credible sources, but they were credible sources that made men the fount of objectivity and truth.

These ideas of detachment and objectivity were forged through the detached physical location of the ‘directors space’. The actual location of the offices was important in the geography of knowledge production. At some works directors would occupy a part of the actual works as, for example, at Tay Works, where the administrative part of the mill was situated in the most “impressive part of the

⁷³ G. Rose, *Feminism and geography, the limits to geographical knowledge* (Cambridge: Polity Press, 1993) 5-11.

building....expressing to workers the importance of the management.”⁷⁴ At others however, the offices were kept separate, as with Cox Brothers’ whose main offices were built at Meadowside in the town centre. The work of the mind was therefore visibly manifested through both ornate decoration and physical dislocation. This mental space, set apart from and uninterrupted by the physical work within the mills and factories, compounded the idea that the directors were all knowing. However, this dislocation does not detract from the working of the panoptic mechanism. Instead, the directors’ offices, as the central tower of the panopticon infers, could still maintain its supervisory role through the practices of documentation.

Beyond individual works, the localisation of the jute industry in Dundee did not lead to an environment of isolation, as Lenman et al have suggested:

There was ... nothing parochial about the way Dundee business manipulated shares and played the world markets. There was no professional stock-brokers or investment managers in the burgh in 1850. Every big firm, however, appears to have had a partner specialising in finance and investment. In Messrs Cox of Lochee, for example, it was Thomas Cox. He and his opposite numbers in other firms were contactable through the royal exchange where they met and exchanged information. The important firms had agents in Liverpool or Manchester who were sometimes members of the family. They do not appear to have suffered from their remoteness from metropolitan financial institutions.⁷⁵

Despite the geographical isolation of the jute industry, directors did not have parochial lives. Within Dundee itself, a tight network of jute company directors emerged and were forged through particular geographies of contact and exchange. The formal arena of the Cowgate was an important place to meet. As Gauldie notes,

⁷⁴ Sim, *The jute mills of Dundee*, 11.

⁷⁵ Lenman et al., *Dundee and its textile industry*, 14.

All transactions in raw fibre and yarns took place in the area known as the Cowgate. This street, now well inland and isolated by the modern town planning, was then close to the river and handy for the docks. All the textile firms had offices there and merchants gathered in the street to transact their business, or met each other over breakfast in the Baltic Coffee House It was a close knit community.⁷⁶

More formal arenas of conversation and exchange such as the Chamber of Commerce and the Royal Exchange were complimented by more informal gatherings in coffee houses and the Merchant's Shelter.⁷⁷ Such spaces were important male preserves where business was done. Ties of friendship and marriage were also implicated in these connections. Miskell notes that families predominantly engaged in textile manufacture or its sister industry, engineering, developed intricate social and business links through their shared experiences as pioneering textile manufacturers. In the early days of mechanised mill spinning, local industrialists frequently visited each other's premises and developed a detailed knowledge of one another's businesses.⁷⁸ Ties of marriage also impinged on these relationships:

The Chamber of Commerce, the 'Cowgate' market, and the shipping interests were interconnected by ties of tradition and inter-marriage not easily stretched to accommodate a stranger.⁷⁹

And it was largely for these reasons, historians suggest, that 'progressive entrepreneurs' with capital did not break into Dundee's jute industry.

Informal weekly meetings at the Chamber of Commerce led to the formation of the Dundee and District Jute Spinners and Manufacturers Association (DDJSMA)

⁷⁶ E. Gauldie, "The Dundee jute industry" in J. Burt & K. Ponting, K (eds.), *Scottish Textile History*, (Aberdeen: Aberdeen University Press, 1987), 112-125.

⁷⁷ See Kidd's *guide to Dundee: its streets, squares, public institutions, places of interest and environ* (Dundee: William Kidd, n.d.) 49.

⁷⁸ Miskell, "Civic leadership and the manufacturing elite" and C. Mackie, *Reminiscences of Flax Spinning from 1806-1866*, (Dundee, n.d.), 56.

⁷⁹ Lenman et al., *Dundee and its textile industry*, 38.

in 1918.⁸⁰ Initially founded as a cartel to protect the prices of members' products, "[c]ommittees were set up to investigate every aspect of the trade and manufacturing process and the Association rapidly became the representative of all members in negotiating with employers - organised unions or otherwise."⁸¹ Entrance was set at £1 per £100 of one's annual wages and any agreement made by the Association was binding upon all member firms.⁸² In this way, the DDJSMA was a forum in which to regulate the jute works across the city and bring them into line with one another, and hence, an important forum from which the whole industry could be surveyed. An example of this comes from the Association's 1921 annual report, which took up the issue of time-keeping in the mills and factories. The members decided that Messrs. Whytock & Sons should visit each of the city's works with the object of regulating and governing their clocks, ensuring "that the gates of various works might be opened and closed at the same time throughout the town."⁸³ Similarly, during periods of strike, members of the Association worked in conjunction with one another. The printed notices posted outside the Buist Spinning Company's Works demonstrate this collective action by managers and directors:

Owing to the continuance of the strike in certain Works of Members of the Association, it is regretted that, unless work is resumed in the establishments of all Members not later than Tuesday, 20th March 1923, operations in these Works will be discontinued on Thursday, 22nd March 1923 at 5.30pm.

And three days later:

Owing to the continuance of the Strike in Camperdown Works, it is regretted that unless work is resumed in the establishment not later than

⁸⁰ This was set up at this time largely in response to the establishment of the DDJFWU amongst the workers of the jute industry.

⁸¹ Preamble to the DDSMA archive, MS84/33, DUA.

⁸² DDSMA, Bye-Laws, MS84/1/1, DUA.

⁸³ DDSMA, Annual report for 1921, MS 84/2, DUA.

Tuesday, 29th May 1923, operations in these Works will be discontinued on Thursday, 31st May 1923, at 5.30pm.⁸⁴

The organisation of the various jute companies in the city therefore worked to eradicate differences in clock time, and more profound differences in wages, the price of finished products, and strike actions.

This organisation was further consolidated in 1921 with the establishment of Jute Industries Ltd., an agglomeration of jute manufacturing firms. Registered in London on 15 October 1920, by early February of 1921 it had acquired the assets of 7 firms: John N Kyd and Company, Thomas Bell and Sons (Dundee) Ltd., J & A D Grimond Ltd., F S Sandeman and Sons Ltd, Gilroy, Son and Co. Ltd., Harry Walker and Sons Ltd., Cox Brothers Ltd.. Jute Industries Ltd. employed some 15,000 workers and accounted for about one half of the jute trade in Dundee.

Manufacturing elites were also connected via their recuperation of various public positions in the town, as provosts, councilors, and benefactors, and it can be deduced from obituaries that various jute owners and managers had informal connections through sporting endeavours and club memberships. Finally, such elite connections were also forged through links beyond the immediate locality. As Crush notes, “[t]he history of a local site is ... a history of its links to the outside. The local is always provisional, always contested, always in the process of being made.”⁸⁵ Jute works were tied to geographies far beyond those of the city itself. Through processes of trade and exchange, and the need for companies to develop trading networks and find overseas agents, directors’ spaces reached

⁸⁴ *Buist Spinning Company*, Minute Book No. 2, 16 May 1923, MS71/1/2, DUA.

⁸⁵ Crush, “Scripting the compound”, 314. Crush draws upon D. Massey’s paper “Questions of locality” *Geography* 78 (1993) 142-149.

far beyond work, the city centre, and the directors' immediate places of contact. Jute works were placed in more expansive networks that linked them together at a range of different scales.

Conclusion

For the majority of Dundee's workers, the workplace was particularly rigid, with the boundaries of work sections strictly enforced. For directors however, it was one part in a network which extended across an empire. As McDowell suggests,

the firm or organization ...embodies within its practices a variety of spatial scales, not only in the production of its material products but in the organization and regulation of business. The social relations of production and employment both embody and are constituted by a complex, permeable, and interdependent network of social processes that operates across, as well as constitutes, a range of geographical scales.⁸⁶

The organisation is not a fixed and stable entity, even though it usually exists in a building, and in a particular place for a specified period.⁸⁷ However, I want to stress that these multiple and contrasting workplace geographies and experiences were forged through practices of power/knowledge that were rooted in the workplace, practices that were steeped in nitty-gritty processes of production and, to borrow Foucault's words, touched 'the very grain of the individual'.⁸⁸

This chapter has traced the micro-geographies of Dundee's jute works through the examination of a number of workplace practices. I have stuck loyally to Foucault's own words with reference to rules, examinations and 'analytical

⁸⁶ L. McDowell, "Linking scales: or how research about gender and organizations raises new issues for economic geography", *Journal of Economic Geography* 1 (2001) 227-250, 228.

⁸⁷ McDowell however is referring to the current period of globalisation with the rapid growth in both size and complexity of economic organizations and their corresponding extension over spatial boundaries. However, these ideas are useful in understanding the nineteenth-century jute industry in Dundee.

⁸⁸ Foucault, "Prison talk", 39.

spaces'. However, I have taken these ideas further, not only in the novel context of the mills and factories within which they are being worked, but also by probing how these disciplinary practices had particular gendered effects. These technologies produced the set of movements, communications and knowledges that restricted women and placed them at the bottom of a hierarchy dominated by male supervisors.

Many of the records I have used to piece together this geography of discipline in the workplace give the illusion that workplace domination and control was comprehensive. They trade in a factual rhetoric of planning, arrangement, and purposive action. They give us little sense of the production process ever being out of control, or out of bounds. But it would be a mistake to leave the workplace with this impression. Although workers, most of whom were women, were confined and disciplined in myriad ways during the working day, the disciplinary strategies and practices I have been exploring were still specific to the mills and factories, and did not reach far beyond the factory gates. More importantly however, control within the workplace was constantly subverted, both blatantly through strikes, but also through more subtle practices of workplace resistance. Workers could and did extend their working spaces, extensions which were made on their own terms. If we want to fully understand women's workplace experience, we need to explore these processes of resistance.

In the next chapter I look beyond the official narrative of disciplinary power in the jute industry, beyond official spaces of discipline, control and order, and examine diverse practices and processes of resistance and protest that made jute

production a managerially fraught process. I will now turn to 'other' or 'counter' micro-geographies of production, power, and knowledge in the workplace and explore how the geographies of the workplace engendered resistance.

Chapter 4

Spacing and Gendering Resistance

In his 1905 survey of working class life in Dundee, Dr. D. Lennox noted that,

the true reason for the employment of women is an economic one. They lack the faculty of efficient organisation and therefore the power of systematically increasing their wages.¹

As Lennox demonstrates, it was through discourses of paternalism that early understandings of women and resistance were forged. The Reverend Henry Williamson, a Unitarian minister and president of the Dundee and District Mill and Factory Operatives Union (DDMFOU), remarked:

It is not easy to know what to do with women. They are governed by impulse...all at once, without notice 50 or 100 of them are in a state of rebellion, and it requires someone to come in just to advise them, for as a rule neither master, manager nor any other official can get anything from them.²

Similarly, in an article published in the *People's Journal* in 1922, he remarked that before unionisation:

When walking down Lochee Road ... it seemed to me that a week never passed without presenting at some part of the route the same sad familiar scene - a band of tousled, loud voiced lassies with the light battled in their defiant eyes gathered together in the street and discussing with animation and candour the grievances that had constrained them to leave their work.³

He compared women to “a flock of sheep without a shepherd” with the usual outcome of strikes being a return to work without redress to their grievances.⁴

¹ Lennox, *Working class life in Dundee*. Dr. David Lennox was both a lecturer in forensic medicine at UCD and the army's local recruitment officer.

² Royal Commission on Labour, *The employment of women*.

³ Williamson, “Fifty Years in Dundee's Stir and Strife”, *People's Journal*, 14 October 1922.

⁴ *Ibid.*

The DDMFOU was formed in 1885 after 12,000 operatives went on strike over a 5 per cent reduction in wages.⁵ With women jute workers as its direct members, the union was a break with the traditional male-centred craft-union organisations. With an entrance fee of 3d. and a subscription of 1d. per week, the union provided victimisation, accident and funeral benefits.⁶ In a lecture entitled 'A Defence of the Constitution, Principles, Methods and Aims of the Dundee and District Mill and Factory Operatives' Union' Williamson stated that the union "was started with the view of finding a remedy for the evils of strikes."⁷ But he also believed that, with such a large proportion of women in the workforce, Dundee's jute industry was exceptional and, "you cannot get women to form real Trades Union."⁸

Although the membership of the DDMFOU had reached 5,945 by 1891, this type of organisation found little favour with established labour groups. In 1906, a spontaneous and unorganised strike and eventual citywide lock-out led to the establishment of the city's second trade union for working women. With the support of the Women's Trade Union League and the General Federation of Trade Unions, the DDJFWU was established.⁹ The two Union's battled it out for membership, and the DDMFOU eventually collapsed.

⁵ See J. T. Ward, "Trade unionism in Dundee" in Jackson (ed.), *The city of Dundee*, 247-284.

⁶ In contrast to the burgeoning national trade union movement, the policy of the DMFOU was resolutely conciliatory and had as a guiding principle the prevention of strikes at all costs: "The Mill and Factory Operatives' Union was organized for the purpose of preventing strikes, and any workers who take matters into their own hands and leave their employment, thus causing serious mischief to their fellow-operatives, are acting entirely contrary to the wishes of the union". *Dundee Advertiser*, 23 February 1906.

⁷ *Dundee Mill and Factory Operatives Herald*, May 1889, cited in Gordon, *Women and the trade union movement*, 184.

⁸ *Dundee Advertiser*, 9 March 1906.

Readings of resistance in Dundee's jute industry reflect the shifting intellectual positions of labour history which emphasise the organised contours of resistance. Such readings have been forged primarily through the work of Walker, Gordon and Smith (see introduction). Walker focussed almost exclusively on the two trade unions mentioned above, but in recent years, other readings have been opened up through feminist revisions of labour historiography. Working through the lens of capitalist-patriarchy, Gordon challenged the masculine assumptions embedded in liberal and Marxist labour history and worked on 'unorganised' as well as organised modes of resistance in Dundee. She showed how women's spontaneous strikes were described as 'rash', 'hasty' and even 'downright folly', but also how women refused to abandon the spontaneous strike as their favoured weapon of resistance.¹⁰ Gordon also suggests that organisation did exist amongst women and that the "history of Dundee's textile industry was not one of the unfettered control of employers over a passive workforce."¹¹ She started to unpick the organised-unorganised dichotomy enshrined in studies of workplace resistance in the jute industry with the organised (the masculinised) taking precedence over the unorganised (the feminised). Even during the period of unionisation, she argues, women continued their sporadic strikes and often won the wage rises that they demanded. The 'unorganised' was effective and did achieve its ends, despite unionists claims to the contrary.

Smith has gone on to demonstrate that 'unorganised' means of protest were in many ways organised, although not on masculinist terms. Using oral history

⁹ The Union's constitution was written with the help of the Women's Trade Union League and had the unique distinction of reserving 12 of the 24 executive seats for women.

¹⁰ Gordon, *Women and the trade union movement*, 182.

¹¹ *Ibid.*, 182.

work, he highlights the importance of the scale of investigation, especially in the investigation of women's strategies of resistance:

That most strikes in Dundee's textiles were unofficial does not preclude prior discussion, thought, or even informal organisation. So, while few women regularly attended union meetings, discussions took place in the streets, in the cornershop, and on pletties - anywhere workers from the shopfloor and the collective community met.¹²

Moving away from an analysis of trade unionism and large-scale forms of protest, Smith focuses on more low key, localised and nuanced forms of resistance. He begins to show that strategies of resistance were likely forged in the wash-house, the tenements and so forth, as well as within the confines of the workplace itself.¹³ Yet in spite of Smith's tentative forays into these other geographies of resistance, women's strategies and practices of protest and refusal in Dundee's jute industry remain to be written. My aim in this chapter is to start to furnish such an account. I will start again with Foucault and then explore the multivalent forms of resistance that has characterised the jute industry.

Foucault and the Geographies of Resistance

[O]rganizational locales will more likely be loci of multivalent power than monadic sites of total control: contested terrains rather than total institutions.¹⁴

One of the standard criticisms of Foucault's work on power is that he leaves too little space for resistance. Resistance can seem impossible and futile because people were trapped and enframed by a "constant disciplinary gaze." Foucault's claim that "power is 'always already there', that one is never 'outside' it, that there are no 'margins' for those who break the system to gambol in"¹⁵, can be

¹² Smith, *The making of a woman's town*, 181-2.

¹³ *Ibid.*, chapter 3.

¹⁴ Clegg, *Frameworks of power*, 200

¹⁵ M. Foucault, "Two Lectures", in Gordon, *Power/knowledge*, 78-108, 85.

read to mean that power (as dominating) is all pervasive and omnipresent. Indeed, in *Discipline and Punish*, Foucault can be construed as giving room solely to the official narratives of the prison. The book is based on a selective reading of official texts – prison treatises, manuals, and so on – and he provides no space for human agency and no voices of dissent. Foucault fails to take account of ‘other’ voices and knowledges.¹⁶ As McKinlay and Starkey put it, “[o]n the question of power and resistance Foucault is at his most ambiguous, his most wilfully elusive.”¹⁷ Without doubt, this elusiveness and lack of direct engagement with the agendas of the disciplined, subjugated and repressed, and the complexities of resistance, has hindered a more widespread use of his ideas in relation to factory work and different processes of industrial production.¹⁸

However, as Miller suggests, the notion of a disciplinary society must not be confused with a disciplined society.¹⁹ It is the former notion that Foucault explicates and in his account, the disciplinary society that emerged in Europe involved both power and resistance, or as he famously, if elusively, remarked:

where there is power, there is resistance ... a multiplicity of points of resistance.²⁰

¹⁶ See P. Dews, “Power and subjectivity in Foucault”, *New Left Review*, March-April, (1987) 72-95.

¹⁷ A. McKinlay and P. Taylor, “Through the looking glass: Foucault and the politics of production”, in McKinlay and Starkey, *Foucault, management and organization theory*, 173-190, 184.

¹⁸ In addition, labour process studies have been comparatively silent about a theory of resistance, and generally resistance has been conceptualised through the domination versus resistance duality. For Marx, ‘real’ resistance in and around capitalist organization could take many forms but would derive from only one source: revolutionary class-consciousness. Through an essentialist framework, Marx worked through the duality of employees versus employers. J. Jermier, D. Knights and W. Nord, “Introduction: resistance and power in organizations: agency subjectivity and the labour process”, in Jermier, et al., *Resistance and power in organizations*, 1-24, 1.

¹⁹ P. Miller, *Domination and power* (London: Routledge & Kegan Paul, 1987), 196.

²⁰ Foucault, *History of sexuality, Vol. I*, 95.

In Foucault's thought, power is a 'force field' of relations that has a transformative capacity that enables it to be both dominating and resisting. Resistance can be the evidence that power exists. This conceptualisation of power breaks away from dualistic thinking about power and resistance, and as Sharp, Routledge, Philo, and Paddison suggest, gives rise to a 'domination/resistance' dyad. This dyad acknowledges that domination and resistance do not exist independently but in conjunction with each other – producing and reproducing one another. In this way, Sharp et al suggest it is better to talk of 'entanglements of power' where resistance and domination are conceived as mutually constitutive.²¹

One of the key themes to come out of an edited collection by Jermier, Knights and Nord on *Resistance and Power in Organizations* (1994) is the importance of scale. They suggest that we:

abandon traditional perspectives that restrict the study of resistance to those struggles among large-scale entities whose members share a common cause. Instead we are driven to explore how concrete local situations interact with the subjectivity of agents involved in complex power-resistance relations.²²

Extending this theme to ideas of place, Knights and Vurdubakis remark that power and resistance, "are best understood when examined in specific sites with definite socio-historical conditions of existence and means of operation."²³ They point specifically to a need to investigate resistance at the local and place-specific scale, enabling a micro-analysis of resistant strategies and actors. However, to move beyond this cursory recognition of the spatial and into a more complex

²¹ J. Sharp, P. Routledge, C. Philo and R. Paddison, "Entanglements of power: geographies of domination/resistance" in J. Sharp, P. Routledge, C. Philo and R. Paddison (eds.), *Entanglements of power: geographies of domination/resistance* (London: Routledge, 2000) 1-42.

²² Jermier, et al., "Introduction", 21.

engagement with the geographies of resistance, we must turn to the work of geographers.

Since Pile and Keith's edited collection *Geographies of Resistance* (1997), the spatiality of resistance has become a central theme in social and cultural geography. Many of the papers in this collection demonstrate that resistance not only takes place in place, but also seeks to appropriate space and to make new spaces. It is not just a matter of mapping resistance by attending to particular locations where resistance 'happened', we also need to gauge the fluidity of resistance and recognise resistance as a process rather than an object and outcome. Through this chapter, I expound these geographies of resistance that have been hidden or denigrated by dominant narratives of power in Dundee's jute industry and explore how resistant strategies produced certain spaces and hinged on certain arrangements of space. I will explore a number of modes and scales of resistance both within and beyond the workplace, and within and between work groups, departments, mills and factories, and across the city.

Resistance Through Segregation

In 1893 there was a general strike across Dundee against a 5 per cent reduction in wages. The strike had originated at the Tay Works and according to the *Dundee Advertiser*, "it was here that the most violent scenes were witnessed":

On Monday at 6 o'clock...the employees who had agreed to stand by the resolution assembled outside the gates, and amused themselves by hooting at their fellow workers who felt it their duty to continue at their work. Before breakfast the strikers numbered 500, after breakfast 2,000 ... It was observed that many of the younger workers, both male and female, had come provided with wooden laths. The 10 o'clock whistle began to

²³ D. Knights and T. Vurdubakis, "Foucault, power, resistance and all that" in Jermier et al, *Resistance and power in organizations*, 167-198.

sound and as the shrill notes were heard a few antistrikers made their way towards the entrance. They were immediately set upon by those armed with sticks, and ran the gauntlet under a shower of hearty blows.

At the same time they were loudly hooted and subjected to remarks of a far from complimentary kind. In this way, about 100 workers, chiefly men found their way in.²⁴

Strikes in Dundee were common and a central site for them was the work gates. Accounts of strike action, (which can be garnered from the local newspapers), and the mode of organisation that shaped and sustained protest (which can be gleaned from trade union records), provide an important insight into the relations that existed between employers and employees and amongst the workers themselves.

In March 1908, John Sime suggested to the DDJFWU Management Committee that he address meetings at the works' gates during the dinner hour, and that handbills announcing his intentions be printed "bearing no day or date."²⁵ A couple of months later it was decided by the Union that, for four days a week, Sime should deliver lectures during the dinner hour at various mill gates, and that a list of the works at which he was to speak should be drawn up three months in advance.²⁶ As all workers had to file through the gates on entering work, they became an important point of contact between the workers and the trade unionists. Physically, the gates were the closest point union officials could unofficially get to a workplace without gaining official permission to enter, and this precipitated a very visual and visible form of protest. Managers and directors, as well as the police, were keen to keep the gates under close scrutiny in case of

²⁴ *Dundee Advertiser*, 5 May 1893.

²⁵ DDJFWU, General Meeting Minutes, 3 March 1908, GD/JF1/1, DCA.

²⁶ *Ibid.*, 23 June 1908

any trouble.²⁷ Symbolically too, the gates represented a transition of power relations, from the 'free space' of the streets, to the surveillance and discipline of the mills and factories.

Although represented by the Union as a boundary between free space and the space of capitalist exploitation, I suggest, through a Foucauldian lens, that disciplinary power operated on both sides of the boundary and took on different forms depending upon which side of the work gates you were on. Inside the gates, domination was forged through various micro-geographies of production (as shown in chapters 2 and 3). However, beyond the workplace, the DDJFWU adopted its own disciplinary strategies. The gates were therefore not only a point of contestation between employees and employers but also amongst the employees themselves, and notably unionists and non-unionists. During periods of industrial grievance, it was common for workers to turn up at the work gates at the beginning of work without any intention of entering. A letter from Cox Brothers noted that due to the meetings held by John Sime and James Reid of the Union at their work gates at 6 o'clock in the morning, "the number of absentees in the mill increased from 1065 at 3pm yesterday to 1203. At 3pm this afternoon it was 1233."²⁸ Union officials and members coerced (or bullied) those workers who did turn up for work. An incident in 1916 demonstrates this:

A case which had a direct bearing on the jute strike was heard in the Sheriff court on Thursday, before Sheriff Neish, when three millworkers, named John Morgan or Duffy, 26 Whorterbank, Lochee; Rose Fitzpatrick or Keenan, 3 East Whorterbank, and Jessie Scott or Burke, 6 West Whorterbank, were charged with assaulting Mary Brady or M'Kearney,

²⁷ As suggested in chapter 2, the work gates were the weakest point in the architecture of the jute works.

²⁸ *Cox Brothers*, Letter Book, 4 April 1916, MS66/II/2/6, DUA.

23a Athol Street, Lochee at the entrance to Camperdown Jute Works, on 28th March.²⁹

This case can crudely be seen as a case of “domination in resistance”. Through a disciplinary gaze which worked amongst the workers themselves, a self-monitoring of workers through union intimidation attempted to produce an homogenous protesting group. Therefore, whether within the confines of the enclosed workspace, or outside, workers could not exist outside of or beyond power. The work gates became sites where conflicting regimes of disciplinary power worked on the workers.

However this segregation between inside and outside is too simple, and can give a much too dichotomous image of resisting and dominating power relations (dominating-inside and resisting-outside). Strategies of resistance could also be forged through the internal segregations of the workplace. In chapters 2 and 3, I tried to show how mills and factories of Dundee were in many ways sites of strict surveillance and how they were imagined as homogenous spaces with anonymous workers going about their particular duties. Defined by an array of rules and a set of disciplinary strategies, jute works sought to be efficient sites of capitalist accumulation. What I now want to stress, however, is that these same sites of surveillance and control were also sites of contestation where relations of power, domination and resistance, surveillance and its subversion, were intertwined. The workplace, constructed as an homogeneous, efficient and productive place, was also made up of competing and often conflicting constructions of work, production and efficiency. The workplace created and contained alternative

²⁹ *People's Journal*, 22 April 1916.

constructions of place or ‘counter spaces’, as Lefebvre refers to them.³⁰ Spaces are not always as they appear, and it is to the disjunctures between appearances in the jute works that I will now turn.

The strategies of control and surveillance embodied in the rules and regulations of various companies that ensured that the workplace was an enclosed and partitioned site were crucial in shaping the resistance strategies that workers pursued. Sites of domination engendered resistance, most obviously the splitting up of the workforce into identifiable groups who did the same job, worked under the same conditions, were paid the same and so forth. This enabled tight networks and identities to form. The division of the production process into specific departments, sections and tasks, thrust upon individuals a group identity and such identities engendered solidarity and resistance. Strong workplace networks and friendships developed and questions of geography became central to the formation of ideas and practices of resistance.

Such networks were not ‘invisible’ to employers, trade unionists and commentators. For example a Lady Commissioner writing for the *DYB* in 1893 reported:

One existing evil in mills is the slack time the workers have; then they gather together and talk over the experience of the previous evening’s so-called pleasure or amusement, which is often not of an elevating nature... A division of the workers, and the oversight of a motherly matron, might obviate the difficulty.³¹

The Lady Commissioner’s observations were underpinned by the notion that all time must be productive. As E.P. Thompson remarked, “[i]n mature capitalist

³⁰ Lefebvre, *The production of space*, 382.

³¹ “Women’s Work and Wages”, *DYB* (for 1893) 176.

society all time must be consumed, marketed, put to use; it is offensive for the labour force merely to pass-time.”³² The ‘passing of time’ was be deemed to be both ‘frivolous’ and dangerous as it gave time for networks to be forged and conversations among workers to mature. Employers recognised this too, and attempted to break up work place gatherings. In a letter from the DDJFWU to the management at West Dudhope works, for instance, the Union articulated its frustrations about the shifting piecers who, the company had decided, could no longer sit together during their waiting spells or ‘pass’.³³ The managers of Dudhope Works realised the importance of informal and impromptu workplace gatherings and were anxious to minimize the time workers had to converse with one another. In contrast, the trade unionists saw the opportunities that such networks created for them. In June 1930, the DDJFWU wrote to Miss Isabella Sandeman:

Yours is the only name I know amongst the weavers at Kings Cross Factory and I have therefore sent this note to you. Will you please pass this note round or let the weavers know that I would like to meet them in our hall to-morrow (Friday) night, say about 7.30, in connection with our call on the firm to-day regarding Weaving rates.³⁴

Through these workplace networks and groupings, the trade union could infiltrate the mills and factories and circulate crucial information.

These examples demonstrate how workspaces, although enclosed and confined from one another and the outside, were in many ways porous and interlinked.

Here a quote from Massey on the conceptualisation of place is particularly apt:

Places can ... be conceptualised as formed out of numerous social relationships stretched over place. And many of these social relations link places together. Places, represented in this way, are thus *not* isolated from

³² Thompson, “Time, work-discipline and industrial capitalism”, 90-91.

³³ DDJFWU, Letter Book, 13 October 1928, GD/JF5/2, DCA.

³⁴ DDJFWU, Letter Book, 5 June 1930, GD/JF5/3, DCA.

each other, each with its own internal history. Their very characteristics are formed, in part, through their links with one another.³⁵

The workplace was a thoroughly interlinked place from the perspective of both domination and resistance, and, the trade union used such links to good effect. I will now examine how the DDJFWU used and encouraged these networks, focussing on the array of 'technologies' it employed to keep account of the workers.

Creating and Extending Workplace Networks

The DDJFWU tried to make its influence felt by creating and extending networks amongst workers, and adopted a range of strategies that facilitated a city-wide project of protest. The Union's second meeting on March 17th 1906 was devoted to dividing the city into districts and appointing collectors. The role of the collector was central to the effective working of the Union and was monitored through a number of Union rules:

1. The Collectors must collect weekly, and enter, in ink, Members' names, with date of entrance and all contributions, before leaving the house and shall fill up spaces in their books and Members' cards with a cross thus X, when Members neglect to pay their contributions.
2. They shall bring their books to the office not later than Wednesday. The office will be open on Tuesday and Wednesday evening, from 7.30 to 9, for Collectors to pay over to the Treasurer all money collected. They shall ascertain, if possible, when any Member removes from their district where such a Member has removed to. They shall, at the close of each month, give the numbers of their Members, amount of weekly subscriptions and total amount of arrears.³⁶

³⁵ D. Massey, "The conceptualisation of place", in D. Massey and P. Jess (eds.) *A place in the world? Places, cultures and globalisation* (Oxford: Oxford University Press, 1995) 45-85, 69. Here, Massey is referring to the connections between the global and the local and although she is referring to place on a different scale to the micro-geographies of a particular site, it is nonetheless relevant for workplace geographies.

³⁶ DDJFWU, Rules, GD/JF/16/4, DCA.

With instructions on collecting and book-keeping scrupulously set out, collectors were closely scrutinised by the Union with books and membership cards investigated by the management committee. If a collector was absent for more than two weeks, they would thereafter be accompanied by a committee member.³⁷ The Union's Management Committee Minutes for January 8th 1907 call on Union members to collect and report information about the conduct of the collectors.³⁸ If the committee's findings were unfavourable, then the collector would be dismissed.

A reliable team of collectors was pivotal to the efficient functioning of the Union. Collectors were despatched not only to gather subscriptions and encourage membership, but also to 'gage opinion' on a variety of Union matters. They were given incentives to recruit new members, and could monitor membership in their own area as the Union monitored their behaviour.³⁹ Through its geographic division of the city, the establishment of a team of collectors and the distribution of membership cards, the Union cast its own disciplinary spell on workers. A worker's identity could be immediately revealed by reference to district and card number.

The use of collectors enabled other disciplinary technologies to be implemented effectively and ensure that the Union had maximum coverage of the industry's workers. In 1916 a strike for a 15 per cent pay rise led to the publication of a new union paper, the *Dundee Textile Workers Guide*. It was established in response to what was perceived as unfavourable coverage in the local newspapers:

³⁷ DDJFWU, General Managers Minutes, 26 Nov 1907, GD/JF1/1., DCA.

³⁸ DDJFWU, Management Committee Minutes, 8 January 1907, GD/JF1/1/4.

The Organised Workers have long been in need of a Journal of their own. Past times and past events have proved that the ordinary press could always be relied upon to misrepresent the cause of the people when they had to array themselves against their masters*, to seek to sow disunion among them; to spread false reports; to weaken their faith in each other and in their leaders; by hint and innuendo to suggest always they were wrong; anything and everything to defeat them in their struggle for human life, against the monopolist and exploiter.

* If proof of this were needed you have only to refer to local press comments last week.

It continued that workers should “not destroy or throw it away; [but] pass it around among your fellow workers, see that it has good circulation. So shall you help us and help yourselves.”⁴⁰ Initially the mouthpiece of the combined textile workers unions in the city,⁴¹ the paper cost a half penny, and was published weekly until the strike drew to a close. After the strike it was taken over exclusively by the DDJFWU, renamed the *Jute and Flax Workers Guide (The Guide)* and published on a monthly basis. *The Guide* became a central component of the DDJFWU’s strategy of resistance. It disseminated information to workers and tapped into and extended workplace networks. For example, it instructed readers to find out whether their neighbour at work was also a member of the Union by asking to see their membership card. In this way, the Union used the networks in place in the mills to get the workers to coerce or bully fellow workers to join the Union. *The Guide* also encouraged its members to write in to complain when fellow workers were not striking, as a letter printed in *The Guide* in 1919 suggests:

Will you kindly take some action with our weavers in Heathfield works as they came in last Saturday in fairly large numbers, while not one of our mill hands were in. None of the workers in Belmont Works (the same firm) were in. Many of those who were in were at the meeting on Friday,

³⁹ *Ibid.*

⁴⁰ *The Dundee Textile Workers Guide*, Vol. 1 No. 1, 7 April 1916.

⁴¹ The Mill and Factory Operatives Union, the Powerloom and Tenters Union, the Calender Workers’ Union, and the Jute and Flax Workers Union.

10th January, and I felt so keen on this matter that I went into the factory at Heathfield and examined their cards and give you some of the numbers and their collector. You will be able to get their names.⁴²

Such letters alert us to the presence of a number of workers who were willing to play an active role in the trade union's process of surveillance. *The Guide* extended the Union's gaze over the workplace, reprimanding non members and making visible those members who did not participate in Union activities or on the Union's terms.

At the end of a six-month strike in 1923, *The Guide* published a photograph of Mrs Elizabeth Low, a 'female scab'. Lest anyone be uncertain of her identity, the paper noted, "Mrs Low was one of Messrs Cox 'loyal' work-people during the strike," (see Plate 16).⁴³ It also exclaimed that "[t]here are a number of female scabs residing in or about Wilkie's Lane",⁴⁴ and chastised workers for helping the 'Fisher Girls' who came to Dundee to blackleg:

What we are surprised at is that any Dundee jute workers take them as lodgers, and we are further surprised that any jute worker gives them any assistance at the work they do.⁴⁵

These examples from *The Guide* show how, through the Union's own disciplinary programme, domination and resistance were very much entangled. *The Guide* was a means of breaking down the physical distance that existed between different workplace sections and different works across the city. As a vehicle of knowledge dissemination, it relayed an array of information between the various workers of different mills and factories, making them aware of what

⁴² *The Guide*, Vol. 3, No. 41, Jan 1919.

⁴³ *Ibid*, Vol. 7, No. 94, September 1923.

⁴⁴ *Ibid*, Vol. 7, No. 94, September 1923.

⁴⁵ *Ibid*, Vol. 1, No. 11, July 1916.

was going on in other places.⁴⁶ It was an important forum for making letters, disputes, wage differences, comments from the press and so forth, public; a space to make things visible and one in which new connections could be made. It was also a means by which information about various jute companies could be appropriated, for example, by informing its readers about company profits and losses.⁴⁷



Mrs Elizabeth Low is a lady who must stand high in the estimation of Messrs Cox Bros. and Miss Peard the so-called Welfare Supervisor. Mrs Low was one of Messrs Cox's "loyal" work-people during the strike. Her "loyalty" will, no doubt, be lost sight of one day, when Messrs Cox Bros. or their management have no further use for her and her "loyal" services.

Plate 16: Photograph of Mrs Elizabeth Low

Source: *The Dundee Jute and Flax Workers Guide*, September 1923, 2.

The Guide was also used to create allegiance both to the DDJFWU, and to warn workers of the dangers of, for example, the organisation of Jute Industries Limited:

⁴⁶ The Union guaranteed a circulation of not less than 10,000 copies of each issue among the mill and factory workers.

⁴⁷ *The Guide*, Vol. 15 No. 64, December 1920.

When the clash comes with Jute Industries, members of the Union must keep in mind that stoppage at one of the firms now forming the “octopus” is a thing of the past. **Every work controlled by Jute Industries must be stopped in one day.** To act otherwise would mean defeat as the orders of one work would be spread over the others.⁴⁸

The Union used the analogy of the Jute Industries Limited as an “octopus” to depict its power and influence spreading across the city, in order to assert the importance of the employees similarly taking concerted and consolidated action.⁴⁹ Again, in March 1923, *The Guide* carried the following reminder:

A number of the employers at J N Kyd’s Walton Works stated their employer, Mr J N Kyd, was one of the best employers....What they, however, must not forget is that Mr Kyd is a director of Jute Industries, and his firm and works are part of that combine. It is a mistake to imagine the Cox methods of management are only to be applied at Lochee.⁵⁰

The Guide was therefore used to remind the workers of the very real boundaries - boundaries of identity and class - between themselves and their employers. As a vehicle of class solidarity it was particularly important when we look at the welfare at work movement in the jute industry. The Union was sceptical of anything the companies said or did in the name of ‘welfare’ and recommended that their workers pay no attention to their various schemes: “Your employer, or his satellites, do not tell you what their savings are. By joining the welfare ‘bank’ you are going to let them know your savings.”⁵¹ And it warned workers, “Don’t join Work Clubs.”⁵²

In addition to *The Guide*, the Union would draw upon workplace networks and norms to inform the array of ‘experts’ that had converged upon the factory. The Union would write to the factory inspectors when rules were being broken by

⁴⁸ *Ibid*, Vol. 6 No. 75, December 1921.

⁴⁹ *Ibid*, Vol. 16 No. 73, October 1921.

⁵⁰ *Ibid*, Vol. 6 No. 89, March 1923.

⁵¹ *Ibid*, Vol. 7 No. 82, August 1922.

management. In 1933, for example, the Union wrote to H.M. Inspector of Factories, David Young, about the South Anchor Jute Works:

[W]e are informed that Preparing operations will be carried on to-night (Tuesday 6th June 1933). We are definitely informed that the Lodge door is always locked when this working is going on. The Night watchmen is attending to the boilers, knocking at the door is useless.

There is, however, a door in Anchor Lane which is not locked. Entrance would be obtained there and access to the mill is obtainable by going through the factory.

We are informed there will be 6 or 7 boys working who are under 18 years.⁵³

In other words, the trade union used official discourses and institutions, to reprimand employers. Similarly, it could work in conjunction with employers to highlight the misdemeanours of foremen. An example of this can be found in the Union's letter book for 1928. The Union had written to Jute Industries Ltd. with regard to the dismissal of Jane Orchison who had been employed at Camperdown Works for 56 years. She had fallen ill on May 4th 1928 and despite telling her foreman Frank Tyrell, was replaced by 1pm. A reply from Jute Industries Ltd., reinstating Orchison, read:

We are obliged to you for having brought this matter to our notice, as the management of Camperdown were unaware of the incident. Instructions have been given to the Foremen to bring similar cases to the notice of the Management before taking action.⁵⁴

Therefore, these two typically opposing groups of employers and employees need to be re-entangled, as they were not homogenous and the power relations between them operated in more complex ways than can be depicted with simple polarities of 'us' and 'them'.⁵⁵

⁵² *Ibid*, Vol. 3 No. 36, August 1918.

⁵³ GD/JF5/4, DDJFWU, Letter Book, 6 June 1933.

⁵⁴ GD/JF5/4, DDJFWU, Letter Book, 22 May 1928.

Hidden Spaces of Communication

I should like to review some of the procedures - many-sided, resilient, cunning and stubborn - that evade discipline, without thereby being outside its sphere, and that can lead to a theory of daily practices, to a theory of experienced *space* and of the disturbing familiarity of the *workplace*.⁵⁶

As intimated in the previous chapters, the official functioning of the workplace hindered communication amongst workers themselves. However, beyond the official accounts and gaze of management, workers did create their own private and hidden spaces of communication. As the above quote from de Certeau suggests, some spaces evade discipline. 'Hidden' acts of communication could be as 'trivial' as the making of faces behind the gaffer's back,⁵⁷ to the stealing of jute to be sold on the black market.⁵⁸ However, I want to focus on the ways in which the details of the work space itself enabled various practices of subterfuge and protest.

In 1881, the *People's Journal* series 'Sketches of life in a Jute Mill' claimed that "[s]o much rudeness, duplicity, and profanity, hidden by the noise and activity of work, afford anything but a good school for the morals of young persons."⁵⁹ James Myles, who worked in a jute factory as a boy, remembered how weavers would communicate with one another:

The noise caused by the machinery is so great, that the most unhallowed dialogues may be conducted by two persons near to each other, without anyone knowing what is going on. This circumstance I found to be the

⁵⁵ Jermier et al., "Introduction", 4.

⁵⁶ de Certeau, "Practices of space", 129. Here I have replaced the word city with workplace. de Certeau insists that their knowledge escapes the solar surveillant eye and cannot be illuminated by its rays precisely because it is not confined to the visible.

⁵⁷ See DOHP tape 013.

⁵⁸ Stewart suggests that "[b]ecause of the toughness of the jute fibre they were excellently hard-wearing footwear, and could be sold outside for a small sum. Another way of making an extra copper if you were not caught." B. Stewart, *Breaking the Fetters* (London: Lawrence and Wishart, 1967).

⁵⁹ *People's Journal*, 28 May 1881.

most favourable one for the mutual circulation of anecdotes and ideas which spread and maintain moral contamination amongst factory workers.⁶⁰

Although the noise of the machinery hindered normal communication, it opened up a private space to converse with a workplace neighbour; a space which the foreman could not reach. Additionally, for communication beyond the immediate neighbour, the weavers were notorious for their lip reading skills and repertoire of sign language which kept communication going:

Oh you couldn't hear over the machinery an' when you wanted the time you did that (gesticulating). There were a lot a signs that you had, you know - you had a sign language.⁶¹

This enabled an alternate space of communication to be opened up, above and beyond the noise of the machines and the knowledge of the foremen.⁶² In this way, workers were able to bend the official working environment to their own advantage.

This same strategy of resistance could also be used by employers. A letter from the DDJFWU, after a consultation with the management of Camperdown Works, reported to an employee, Mrs Elizabeth Boland, that a promise of return to work had been disregarded:

He said that there was no trace of any promise that week about, or turn about, was to be given to the workers transferred along with you. I said the only trace of such a promise would be, if it was written, as, in the noise of the mill, the person to whom the promise was given would be the only one to hear it, and the foreman could deny the promise five minutes after it was given if he cared.⁶³

⁶⁰ J. Myles, *Chapters in the life of a Dundee factory boy; an autobiography* (Edinburgh: Adam and Charles Black, 1850). However, this text is disputed as a 'genuine' account and it was suggested by the *People's Journal*, 30 May 1903, that Myles had never in his life worked in a spinning mill or factory.

⁶¹ DOHP tape 023

⁶² Interview with Halley's weavers

⁶³ DDJFWU, Letter Book, 15 December 1916, GD/JF5/1, DCA.

As the workers used the working environment to their advantage, so foremen could use it to theirs, to disguise their maltreatment of workers. Strategies of resistance and domination could be appropriated and re-appropriated by both workers and foremen to meet their own needs. Hidden spaces opened up for both.

These spaces of communication amongst workers were not always concordant and there was no one homogenous resisting group; to suggest that there was would be to fall into the trap of romanticising resistance. Abu-Lughod cautions against this “tendency to romanticize resistance, to read all forms of resistance as signs of the ineffectiveness of system of power and the resilience and creativity of the human spirit in its refusal to be dominated.”⁶⁴ One way of overcoming this tendency or impulse is by looking more closely at the resisting group itself and its internal politics. According to Ortner, it is the absence of analysis of these forms of internal conflict that gives many studies of resistance an air of romanticism.⁶⁵ A reading of resistance that explores the fragmented nature of the resisting group is particularly important when exploring how gender was implicated in the processes and strategies of protest and refusal.

In Dundee, in addition to the channels of scrutiny that the DDJFWU opened for its members, ‘bitching’ amongst workers was common. This was used by workers, in part, to construct an ‘ideal’ worker and police deviations from the ideal.⁶⁶ Workers would regulate their own and their fellow workers’ behaviour in

⁶⁴ L. Abu-Lughod, “The romance of resistance: tracing transformations of power through Bedouin women”, *American Ethnologist*, 17 (1990) 41-55.

⁶⁵ S. Ortner, “Resistance and the problem of ethnographic refusal”, *Comparative Studies in Society and History*, 37 (1995) 173-193.

⁶⁶ An ideal in terms of the workers themselves, not the employers.

the mills and factories.⁶⁷ This does not suggest a self-disciplining that played into the hands of the employers. Bitching should also be seen as a strategy of resistance. For example, Mrs MacIntosh, a former mill worker recalled that in 1918, when she had moved from one mill to another, one “lassie” constantly mocked her Fife accent. She explained that, “it got on ma nerves”, and so one day on going into work, “Ah went tae ma machine, took off ma coat, and a went over tae her.” Her antagonist laughed at her complaints: “She just kept laughin; I just took ma hand and bashed her (laughs), she started greetin (crying), and the gaffer went tae ask how she wis greetin,”⁶⁸ Likewise, Jessie Mitchell recalled that when working in a weaving factory in the 1930s, an older women who had “an awfy spite at me, made meh life a misery, an Eh had tae gie up meh job.”⁶⁹ Communications both within and outwith the knowledge of the management reflected the factious reality of the workplace with working women themselves constructing a form of workplace behaviour from which deviations were not tolerated.

Work as ‘Free’ Space

Networks and communications between workers were not solely a strategy for resistance in the face of workplace exploitation. Workers did not view the workplace solely as a site of drudgery. Many enthused about their time in the mills and factories:

I just loved my work, just loved it. You know, the social part of it, you know the people you were meeting - there was a comrade spirit about the

⁶⁷ These ideas are taken from a paper by P. Sotirin, and H.Gottfired, “Dynamics of secretarial bitching”, *Organization*, 6 (1999) 57-80.

⁶⁸ See Smith, *The making of a woman's town*, 191.

⁶⁹ *DOHP* tape 034, cited in *ibid.*, 192.

whole place, you know. You were all doing the same thing, there was no monotony about it. I never felt any monotony about it.⁷⁰

Did na have much money, but we had a lot o' fun - it was a carpet factory an' it was great a lot o' happy times there....⁷¹

The weavers at Halley's spoke of the friendly atmosphere that existed in the factory where they would pass around books and magazines.⁷² As one spinner remembered, when someone was getting married, "[s]omebody would bring in a lace curtain, and somebody would bring in a bit veil and a big chamber pot and you filled it wi' soap and you stuck a wee dolly in it.... And the bride had to carry that home."⁷³ Workers would fill the workplace with meanings that lay above and beyond official discourses of production and control.

Songs also featured in the workplace and were used to mark special occasions.

The lyrics for the 'Spinners Wedding Song' are as follows:

The gaffer's looking worried,
The flett's in a steer,
Jessie Brodie's getting' merried,
And the mourn she'll no be here.

The shifters they're a' dancing,
The spinners singing tae,
The gaffer's standing watching,
But there's nothing he can dae⁷⁴

As the song suggests, the gaffer could only stand back and watch as the entire department joined in the merriments. Foremen and management employed a degree of strategic tolerance when such celebrations broke out, and the workplace was therefore reinscribed (often mutually by employers and employees) as a

⁷⁰ Interview with Mrs Kane.

⁷¹ *DOHP* tape 026.

⁷² See interviews with Halley's weavers

⁷³ *Ibid.*

⁷⁴ M. Brooksbank, *Sidlaw Breezes* (Dundee: David Winter and Sons Ltd., 1982) 58-59.

fleeting site of celebration where traditions particular to the women inside could be forged.

A culture of folk singing was common and became a central component of mill life. One song that was remembered astutely was 'The World's Ill Divided':

Oh, dear me, the mill's gaen fest,
The puir wee shifters canna get a rest,
Shiftin' bobbins, coorse and fine,
They fairly mak' ye work for your ten and nine

Oh, dear me, I wish the day was done,
Runnin' up and doon the Pass is no nae fun;
Shiftin', piecin', spinnin' warp, weft and twine,
Tae feed and cled my bairnie affen ten and nine

Oh, dear me, the world's ill-divided,
Them that work the hardest are aye wi' least provided,
But I maun bide contented, dark days or fine,
But there's no much pleasure livin' affen ten and nine.⁷⁵

Remembered by Stewart, this song was just one of many to feature in everyday mill life:

Many a song was sung about the work in the mills and factories. There was the Dundee Weavers' song, the Dundee Spinners' song, all of which have made their way one time or another to the top of the folksong charts. There were songs about the batchers and the break-cans, but as these came from the low mill I am afraid the language was a little on the strong side for the publishers and their printing machines, and so they remain to this day in the heads of the old mill workers, reserved as a special party piece when occasion permits.⁷⁶

James Myles also refers to the singing of what he calls 'vile' songs laced with bad language and remembers how, "One day I was oiling the cylinder of a frame, I heard one of the oldest women in the flat busy teaching a little girl a song, so disgusting in its character and in name, that it cannot be mentioned."⁷⁷

⁷⁵ *Ibid.*, 59.

⁷⁶ Stewart, *Breaking the fetters*, 19.

To many social commentators, the placing of men, women and children in the same enclosed space had a ‘polluting’ effect. But in contrast to prescribed gender roles, Myles goes on to suggest that it was women who were prone to harassment, as the harassers:

In no establishment does moral poison circulate so rapidly as in a spinning-mill. I have known a woman of bad character pollute the whole juvenile workers of the flat in which she was employed. She would fill their young minds with wanton and lascivious ideas; teach them to sing obscene songs; gradually introduce them to her own companions; take them to low dancings; lead them to houses of bad fame, and finally accomplish their ruin.⁷⁸

On one occasion, when he asked them where they learned such a song “they burst into a shrill wild laugh a laugh that can only be given by mill girls - seized me, pulled me down on the floor, and proceeded to maltreat me in a manner which was neither modest or merciful ... I was made the butt of the girls ridicule.” This account reflects both Myles’ patriarchal views and how middle class Victorian attitudes were actively undermined by women workers. In another incident in the inter-war years, a mill had to be closed down “because they were all tipsy”, with the song “How can you be happy when happiness costs such a lot?”⁷⁹ The song was sung by the spinners and 12s. 6d. refers to the price of a bottle of whisky.

Such songs and raucous behaviour can be read as coping strategies employed by workers to survive the very real and material hardships of work. But they nevertheless subverted the production process and can therefore also be construed as strategies of resistance. Humour as resistance has, according to Rodrigues and

⁷⁷ Myles, *Chapters in the life of a Dundee factory boy*.

⁷⁸ *Ibid.*, 19.

⁷⁹ Interview with Halley’s weavers.

Collinson, been a much under-researched area.⁸⁰ They suggest that humour may be a relatively effective way of expressing dissatisfaction where more overt forms of resistance might provoke managerial reprisals. Humour was difficult for managers to control and the disguised and subterranean nature of many of these practices renders analysis difficult. Yet we should not ignore the importance of the space of fun and humour that workers created for themselves. This appropriation of employers' time and space was a basic act of resistance, filling the workplace with meanings that were articulated with, but should not be reduced to, some basal logic of production. Workers were sometimes and in some ways able to slip out of 'surveillance space' into what can be termed 'free space'.

As Gordon has remarked, "mill and factory shop-floor life could have a rich and robust character, which was barely stifled by the level of supervision which prevailed."⁸¹ And according to Smith, workplace fun provided the foundations from which more determined resistance strategies sprung. He suggested, "it was on the basis of the self-belief and solidarity, promoted by both the conflict and fun of the shopfloor, that daily resistance in the textile mills and factories sprang."⁸² For those in numerous positions of authority, this workplace 'culture' and these hidden spaces were problematic. For many social commentators, employers and union leaders, workplace networks, friendships and culture were deemed to go hand in hand with both moral degeneration and unorganised resistance.⁸³

⁸⁰ See S. Rodrigues and D. Collinson, "'Having fun'?: Humour as resistance in Brazil", *Organization Studies*, 16 (1995) 739-768.

⁸¹ Gordon, *Women and the trade union movement*, 154-55.

⁸² Smith, *The making of a woman's town*, 193.

Resistance was once a relatively unambiguous category, part of a binary where domination and resistance were opposites, and with simplistic views of who resists and on what terms. When it came to the workplace, it was the actions of male workers working through official trade union networks that counted as resistance. Employers were pitted directly against employees, and we saw the factory as a space of mutual antagonism in class terms. However, Foucauldian and feminist readings of power have led to the appreciation of resistance in a much greater range of acts. However, one of the main upshots of this explosion of interest in resistance in post-Marxist terms has been the fragmentation of the category resistance to the extent that some now wonder whether it is any longer a meaningful and coherent concept and term. Pile, for instance has asked, “how is resistance to be recognised as a distinctive practice?”⁸⁴ In reply to these concerns, Yeoh suggests that, “[w]hilst we need to guard against trivialising ‘resistance’ by discerning it in all situations everywhere, paying attention to forms of resistance beyond the most explicit and heroic manifestation, allows us to appreciate the fluid, unstable nature of power relations.”⁸⁵ This conceptualisation of resistance is particularly important in discussions of women and resistance. The history of trade unionism is one dominated by men, with women given only a marginal role. With trade unionism viewed as the only form of legitimate resistance, women’s often more spontaneous actions have been derided.

⁸³ See chapter 5.

⁸⁴ S. Pile, “Introduction: opposition, political identities and spaces of resistance” in S. Pile and M. Keith (eds.), *Geographies of resistance* (London: Routledge, 1997) 1-32, 15.

⁸⁵ B. Yeoh, “Historical geographies of the colonised world”, in Nash and Graham, *Modern historical geographies*, 146-166, 150.

In 1987, Peter Jackson suggested that in social geography, the object of resistance had been underemphasised, almost to the point of invisibility.⁸⁶ Since then however, there has been a surge of interest within and beyond geography in the nature and effectiveness of a great range of resistance projects and strategies. Indeed, Cresswell notes that in the last few years “[f]ew could get away with a paper on power which did not, in some way or other, deal with resistances to that power.”⁸⁷ With this burgeoning interest and attempt to ‘find’ resistance in new places and spaces, some scholars have become concerned with the use and misuse of the term. “Resistance is in danger of becoming a meaningless and theoretically unhelpful term. Something that is applicable to everything is not a particularly useful tool in interrogating social and cultural life.”⁸⁸ These are difficult and uncomfortable points and raise many new and awkward questions. My concern here is with how an exploration of micro-practices and acts of resistance can help us to see how women negotiated the conceptual space of ‘woman’. They did so in part, I have been suggesting, by challenging and blurring the traditional boundaries of masculine and feminine behaviour.⁸⁹ At the same time, women reiterated hegemonic discourses of femaleness by celebrating pregnancies, marriage and so forth. Working women negotiated the workplace in myriad ways, and adopted and created subject positions that could both comply with and disrupt notions of what it was to be ‘a woman’.

⁸⁶ P. Jackson, “Social geography: social struggles and spatial strategies”, *Progress in Human Geography*, 11 (1987), 266-269, and T. Cresswell, “Falling down: resistance as diagnostic” in Sharp et al., *Entanglements of power*, 256-268.

⁸⁷ *Ibid.*, 259.

⁸⁸ *Ibid.*, 259.

Territorialisation and Performance

Strikes provided the antithesis to workplace confinement and regulation and I now want to briefly explore how protest was forged and located beyond the mills and factories in order to highlight the complex positionings of working women in the world of work and 'public' space. I want to show that, with the official backing of the trade unions or through informal walk-outs, strikes invoked processes of both territorialisation and performance.

Official statistics show that during the period between from 1889 to 1914, there were 103 strikes involving women in Dundee's jute industry.⁹⁰ However, evidence gleaned from newspaper accounts suggest that the majority of strikes were short-lived affairs, and that many of them lasted only a matter of hours. It is therefore likely that this official figure underestimates the frequency of strikes amongst women.⁹¹ Chastising a crowd of strikers, the Reverend Henry Williamson, President of the DDMFOU inquired what their fathers thought of their behaviour, (despite the fact that the majority of them were adult women and many of them were married).⁹² As Williamson implies, and the newspapers show, striking women were not taken seriously by men.

Strike action has been understood through conventional notions of patriarchy. As Gordon remarks:

Although the spontaneous nature of the strikes could be seen as a rational and instrumental response to the objective conditions of the jute industry,

⁸⁹ However, in doing so, they could reinforce the importance of these boundaries as chapters 6 & 7 discuss.

⁹⁰ *Annual Report by the Chief Labour Correspondent on Strikes and Lockouts in the United Kingdom, 1890-1913* (London, 1913).

⁹¹ Gordon, *Women and the trade union movement*, 190.

⁹² *Ibid.*, 168.

it could also be interpreted as an assertion of independence from the control of both employers and to some extent male-dominated trade unions.⁹³

Gordon provides examples of the success of women's spontaneous strike action over the formal union negotiations of their more highly skilled male employees,⁹⁴ and in her study of the factory system in Germany, Canning found that "undisciplined female wildcat strikes" revealed both the ways women contested the dominant structures and rhetorics of work, and the impermeability of female work culture to men.⁹⁵ I will take such observations further by focusing on the geographies of these strikes within and beyond the mill and factory, the ways in which they were represented, and the power/knowledge networks through which they were forged.

Strikes were effective in extending grievances to other sections of a works, indicating that workers were knowledgeable about the production process and the interdependencies between sections. For example, bad attendance by workers in the preparing department at Camperdown works in 1914 meant that one of the mills had to be entirely closed, throwing 200 workers out of work.⁹⁶ The boundaries between work sections could therefore be permeated as a strike instigated by one group of workers could affect the whole works.

Strikes also encroached on the relations between various works across the city and urban space more generally. In contrast to the geography of restricted

⁹³ *Ibid.*, 207.

⁹⁴ However, as she notes, this was at a time when the Dundee textile trade was in a healthy state due, in part, to the succession of a number of wars. *Ibid.*

⁹⁵ K. Canning, *Languages of labor and gender: female factory work in Germany, 1850-1914* (London: Cornell University Press, 1996) 320.

⁹⁶ *Cox Brothers*, Letter Book, letter no.753 to the DDSMA, MS66/II/2/5, DUA.

workplace movement that I have described, strikes were an opportunity for workers to appropriate space and provide a display of power through mobility. In 1912, a strike at the Camperdown works in Lochee saw strikers 'beseige' Baxter Brothers Works in Princes Street:

A procession of about 400, armed with sticks and other weapons, and arrayed in false faces and other fancy dress, marched down Lochee Road, through High Street, up Murraygate, and up to the gate of the works in Princes Street....The arrival of the strikers struck terror into the hearts of Baxter's workers, and they were afraid to enter the works. Stones and other missiles were thrown at the free labour people, and the situation was indeed serious. The police had to make strenuous efforts to check the rush, and it was a risky job to provide an escort to the terrified workers. But the police went boldly forward, and opened up a passage to the gate. In a body Baxter's employees rushed through the gates, and once inside they looked down through the windows above and laughed in the faces of the crowds.⁹⁷

In this article, the *Telegraph and Post* reporter noted that the Lochee police had been warned of the likelihood of a strike and of strikers' intended movements. As a result "a force of police under Inspectors Paterson, Gordon and Fraser were despatched to the works, and took up a position at the gates." This article can be used to draw out a couple of important points. Firstly the significance of movement. The report maps out the route taken by the strikers, demonstrating how works' managers, directors and police tried to monitor the movements of workers, and were alert to the idea that "trouble of this sort very soon spreads."⁹⁸ The article also pays particular attention to the appearance of the strikers, making reference to their 'false faces' and 'fancy dress'. Although this and other newspaper accounts of strikes do not reveal the 'reality' of the events, they usefully highlight the agency of the strikers and their practices of performance. Strikes provided an opportunity for workers to express their discontent in ways other than verbal digest. Such a reading of strikes as performances helps us to

recover something of the strikers' agency and overcome the fact that their voices are so often lost in the archives. Through the expressive powers of the body, something as simple as dressing up became a political instrument – in this case, a way of ridiculing police and employers.

The response by Baxter's workers also suggests strikes worked as theatrical events, and Dennis, writing of parades in New York, provides a useful parallel: "In vertical cities, like New York, parades were even more theatrical, the audience looking down from office apartment windows as if in a theatre balcony."⁹⁹ Peering down from the 'safety' of the works, Baxter's workers provided the audience for the strikers behind the gates. We might take this as an example of the messiness of domination and resistance with the distinction between actor and audience becoming blurred.

These ideas and practices of performance and theatre also besieged 'directors spaces'. As I noted in chapter 3, the Cowgate area of the city became inscribed as the 'territory' of the city's business men, and this clear definition was both re-affirmed and subverted during periods of strike. An article from the *Dundee Advertiser* in 1906 gives us a good sense of how this happened:

The Lochee contingent, to the number of about 2000, and mostly armed with sticks and attired in paper head-dress, created a bit of a stir. They invaded Dundee via Lochee Road, and crossed the High Street, proceeded up Commercial Street to the Royal Exchange, where they shouted their demands and danced the war dance. Then they surrounded Messrs Cox Brothers' offices in Meadowside, and after again enforcing their claims they marched up Hilltown and home by Loons Road.¹⁰⁰

⁹⁷ *Telegraph and Post*, 7 March 1912.

⁹⁸ Caird Ltd, Jute Manufacturers, Private Letter Book, 28 December 1918, MS 60/1/2, DUA.

⁹⁹ R. Dennis, "Historical geographies of urbanism", in Nash and Graham, *Modern historical geographies*, 218-247, 229.

¹⁰⁰ *Telegraph and Post*, 6 March 1912.

Strikers invaded the Cowgate....‘in a twinkling’, a circle, the diameter of which extended from the Queen’s statue to the portals of the shelter was formed, and a couple of scores of shrieking, shouting spinners run around in the gyrations of jingo ring...ere long Panmure street was thronged from end to end by an uproarious crowd of lassies. Number gave them the boldness and they made a rush for the shelter, in which for the most part the millowners seeking to escape personal allusion and recognition had taken refuge...A hooting band made a rush for the last door, but the police, who acted with commendable discretion intervened and the portals were closed.¹⁰¹

Whether workers encroached upon the offices of a particular works or upon the area as a whole, their presence in the Cowgate heralded a transgression of urban space and class order. The language in the first passage points to this transgression. The idea of workers ‘invading’ Dundee and then dancing the ‘war dance’ suggest a re-territorialisation, however fleeting, of what was seen as a space that they did not belong to and ordinarily did not have access to. Sack defines territory as “*the attempt by an individual or group to affect, influence, or control people, phenomena or relationships, by delineating and asserting control over a geographic area.*”¹⁰² The appearance of workers in the Cowgate demonstrated such an attempt to affect and influence. Invading the territory of the manufacturers and imprinting their presence in the city proved yet another way of challenging employers’ authority. By the workers asserting their independence, even for a brief period, the terms of the relationship between employers and employed were determined by the workers.¹⁰³

Feminists have long been aware of the tendency to regard public space as the disembodied and transparent space of Rational Man, and in Dundee it was the Cowgate as the business area of the town which was inscribed as such. The

¹⁰¹ *Dundee Advertiser*, 27 February 1906.

¹⁰² Sack, *Human territoriality*, 19, original italics.

¹⁰³ These ideas are developed by Gordon, *Women and the trade union movement*, 208.

menacing presence of strikers therefore threatened the imaginative boundaries erected to mark off and separate workers from businessmen. Strikes that entered the heart of the city demonstrated that public space could become contested terrain. Although work was seen as a part of the public sphere, the workplace was in fact very private, and only through strikes and marches through the city did it take on a concerted public appearance.

Strikers were also renowned for carrying effigies of particular employers, dressing in a comic manner, and donning men's hats and even police helmets.¹⁰⁴ As Garber writes, this use of parody goes deeper than offering a mere challenge to male authority:

[O]ne of the most important aspects of cross-dressing is the way in which it offers a challenge to easy notions of binarity, putting into question the categories of 'female' and 'male', whether they are considered essential or constructed, biological or cultural.¹⁰⁵

By mocking figures of authority, be they jute company owners and directors or the police, striking girls and women challenged gender norms. However, while the very visual and visible presence of striking women defied such norms, strikers in many ways still complied with normative codes. Dressing up reinforced the mind-body binary as the detached gaze of the newspapers converged upon the physical presence of striking women and described in detail the way they looked. A close reading of the newspaper reports about particular strikes start to reveal the ambivalences and contradictions surrounding women in public spaces. For example,

Those on strike paraded the streets yesterday in grotesque processions bearing emblems of their trade, suspended from poles, such as mats, jute

¹⁰⁴ *Ibid.*, 209.

¹⁰⁵ J. Garber, *Vested interests: cross-dressing and cultural anxiety*, (London: Routledge, 1992), 10.

etc. They also indulged in shouting and singing, the latter being a peculiar sort of march, the words of which were principally intended to convey the information that they were somebody or other's 'band'.¹⁰⁶

[A]n uproarious crowd of madcap lassies.¹⁰⁷

For the most part the persons infected with the spirit of rebellion are young girls.¹⁰⁸

Nikolas Rose notes that nineteenth-century thought was "haunted by the spectre of the crowd, the mob, the mass, the riot, the multiplication of forces of rebellion which could be brought into being by the concentration of persons in space."¹⁰⁹

The presence of a crowd largely composed of women exaggerated these concerns and words such as 'grotesque' invested strikes with what were deemed to be characteristically female traits. As Stallybrass and White remark of the urban crowd:

The threatening masses were described in feminine terms: as hysterical, or in images of feminine instability and sexuality, as a flood or a swamp. Like women, crowds were liable to rush to extremes of emotion.¹¹⁰

Although women challenged dualistic thinking through their performances and re-territorialisations of urban space, their actions were also enframed by dualistic thinking. Definitions of women and girls as 'madcap' and 'infected with the spirit of rebellion' were used to demonstrate the 'hysterical' and 'unruly' feminine.

What particularly riled social commentators, trade unionists, and directors was the idea that women were having fun. As the *Telegraph and Post* reported in 1906,

¹⁰⁶ Unidentified newspaper cutting, c.1910, LC 196c (27).

¹⁰⁷ *Ibid.*

¹⁰⁸ *Telegraph and Post*, 7 March 1906.

¹⁰⁹ N. Rose, "Towards a critical sociology of freedom", in P. Joyce (ed.), *Class* (Oxford: Oxford University Press, 1995) 213-224, 216.

¹¹⁰ P. Stallybrass and A. White, *The politics and poetics of transgression* (Ithaca: Cornell University Press, 1986) 7.

There are some funny figures taking part in the strikers procession. Many of the demonstrators are young lasses and lads who are having a rare good holiday.¹¹¹

Strikes were a 'flight from work', a collective expression of defiance, however temporary. By imbuing strikes with a sense of fun, workers underscored the fact that they were expropriating this time from employers and were repossessing it themselves.¹¹² Converging upon the Cowgate was an effective way of appropriating directors' time (time which should be productive), and appropriating directors' own space.

Conclusions

In this chapter, I have alluded to what can be called 'new geographies of resistance'. This approach probes the seemingly natural and previously 'irrelevant' in its project of redressing resistance. My task here has been three-fold. First, to recover small-scale acts of resistance and refusal. Second, to theorise resistance as part of an entanglement with domination. And third, to explore the spatiality of resistance. I suggest that this empirical and theoretical approach is central to the effort of writing women back into histories of protest. In addition, rather than view resistance as an outcome, this chapter has focused on the very processes and devices through which resistances were forged. From workplace segregations to textual devices, I suggest that geography is central to gaining a fuller understanding of the processes and manifestations of resistance.

The issue of borders and boundaries runs through this chapter at a number of levels. My exploration of the variety of resistant strategies that women used

¹¹¹ *Telegraph and Post*, 26 July 1906.

¹¹² These ideas are developed by Gordon, *Women and the trade union movement*, 209-210.

highlights the fluidity of both real and conceptual boundaries in the jute industry. The real boundaries of workgroups, departments, works and city spaces were penetrated by women's networks and strikes. At the same time, the conceptual boundaries of man and woman, the woman's place and role, were constantly extended and reaffirmed. I have tried to show that domination and resistance were entangled, that these boundaries were negotiated rather than simply given, and that they were negotiated by women finding their own particular means of protest.

This notion of boundary is carried forward in chapter five, which explores the construction of urban and workplace types. As working women transgressed the boundaries of public and private space, an array of social commentators converged upon them, constructing identities to which they could be harnessed. Placing women within rigid categories aimed to regulate and control the transgressive qualities of work and its wider social relations, and in turn, recreate order – a male order.

Chapter 5

Constructing 'Types': Identifying Working Women

The subject of women's work was central to the 'New Journalism' of the late nineteenth and early twentieth century city.¹ The DYB carried eight articles on women's work and working women. In comparison, no articles focused specifically upon men's work or working men. These DYB articles distinguished between two types of female worker: the weaver and the mill worker (comprising of both spinners and preparers). An article in 1901 clearly articulates this division:

We are met at the outset by a decided and recognised division, consisting of weavers on the one hand, and spinners and preparing hands on the other. Speaking generally, the weavers are well remunerated, and live in good dwellings. They are a fine healthy looking and self-respecting body of women, and do credit to our city. The spinners, unfortunately, though highly skilled in their own calling - a calling in which proficiency is only acquired after long experience, are, by some strange trade custom, less favourably recompensed than their colleagues the weavers. The spinning therefore attracts a different class of workers, a class who live often in the most miserable houses, and appear little superior to the poorest paid operatives - namely, the preparing-room hands. Strictly speaking, there are sub-divisions even among spinners, those in certain mills being vastly superior in general conduct to others employed in premised working coarse and dirty material, but space does not allow too minute particulars.²

Although these divisions were premised upon workplace roles, they were understood in more extensive terms as class divisions that were indicative of social differences. In addition to the millworker and weaver, another figure of notoriety was the married working woman. As Lennox remarked:

¹ See C. Malone, "Sensational stories, endangered bodies: women's work and the new journalism in England in the 1880s", *Albion*, 31 (1999) 49-71.

² "Dundee's mill and factory workers", *DYB* (for 1901) 202.

It is a grave statement to make that the evils of married women working in mills and factories are essential to a trade which for economic reasons prefers female and juvenile labour to that of adult men.³

Women's marital status came under the spotlight, with married working women often scorned.

These three figures are captured and reproduced in Walker's history of the industry. He observed that the weavers "are [a] hard-working, thrifty, and self-respecting class of workers. They impress visitors by the neatness of their dress and the decorum of their manners." In this way, "[t]here is nothing of the typical mill girl about them, though she does exist in some parts of Dundee. It is in the spinning mill and preparing department that the largest proportion of married women, who are the mother of young children, is found."⁴ Female factory labour was constructed as *the* social problem in Dundee, and the categorising and labeling of these three figures was central to the processes of the stereotyping that surrounded women, the jute industry, and their place in Dundee's economy and society.

This chapter focuses on these processes. I explore how these three figures were constructed as workplace 'types', and how the identities ascribed to them extended beyond work. Drawing on a range of sources, including newspaper reports, philanthropists' investigations and trade union reports, I explore how these figures were created with essentialist arguments and through the object-constituting power of discourse.

³ Lennox, *Working class life in Dundee*, 171.

⁴ M. Walker, "Work among women" in *Handbook and guide to Dundee and district*, 69-76.

But before I begin, it is important to note that the process of 'reconstructing' workplace identities is difficult and elusive. As Kathleen Canning notes:

Work identities admittedly are elusive historical subjects that cannot be reconstructed in any definitive way; instead they are "read" and interpreted by comparing a variety of sources, including company personnel records, factory inspectors' reports, police reports, and social reformers' observations of mill life.⁵

The aim of this chapter is not to recover a true or essential identity. Rather, closely following the discursive archival research process explored in the introduction, I look for recurring themes in the ways in which women were described, defined, categorized and essentialised as working women. Drawing again on Foucault, I probe how working women were *known*, and I quote extensively from disparate sources to identify the discursive practices through which working women were constantly positioned and repositioned. At certain points in the chapter, I purposely refer to *the* weaver and *the* millworker, and *she* and *her* as singular and definite categories in order to draw attention to the processes of essentialisation. However, I take Foucault's notion of discourse one step further. Discourse also disciplines subjects into certain ways of thinking and acting, and as such, our sense of 'self' and 'other' is made through the operation of discourse. Here, I introduce Butler's notions of performativity to explore the ways in which workers themselves took on these identities, and actively reproduced them.

⁵ Canning, *Languages of labor and gender*, 219.

Constructing Workplace Types

(Self-)Determining Types: the weaver and the millgirl

In at the same gates, ... go the respectable, well-dressed, industrious girl, and the frowsy-haired, bare armed, short petticoated, shawlied lassie, of hard voice and rough manners.⁶

Taken from an article entitled 'Women's Work and Wages', the above quote demonstrates the sharp dichotomy that existed in the categorization of women. It describes the two basic and opposing 'characters' who occupied the workplace: the weaver and millworker (or sometimes referred to as the spinner or millgirl). Here, I draw on the work of a number of urban historians of the Victorian city, including Mary Cowling and Lynda Nead, to explore the diagnosing of characters from the contemporary urban scene. Their work helps us to think about the construction of workplace types, and one of my aims here is to deploy ideas from this literature in the Dundee context. It is important to probe the specificity of the Dundee case, and in what follows I try to show how the differences between the two characters, the weaver and millworker, were grounded in very different workplace geographies and conditions.

These ideas are exemplified through a series of articles by the Rev. Henry Williamson, one-time president of the DDMFOU, that appeared in the *People's Journal* in 1922. Reflecting upon fifty years of work in Dundee, he recalled his efforts to start up evening classes for millgirls. Resisting his ideas however, the School Board insisted that it would be "undesirable to make any distinction between the classes" of millgirl and factory worker (or weaver). Williamson

⁶ "Women's Work and Wages in Dundee", *DYB* (for 1903)154.

responded by saying that it was not he who had made the distinction, for “the distinction was there in actual fact”:

It may not be generally known that a wide gap separates the mill girls from the factory girls - indeed, so substantial is this subtle distinction that it used to be said of the Scouringburn that the mill girls took one side of the street and the factory girls the other.

He continued by describing an instance of what he called “this caste system” which came to his notice at the Rosebank evening school:

Along came the girls of the factory class, neat and smartly dressed to the tips of their gloves and their be-ribboned hats. Standing by were a dozen or more mill girls with shawls over their shoulders, all bare-headed and some even bare-footed. They watched the others pass within, and then one of them cried, “I’m no gaen in wi’ thae mashers” and left.⁷

As specific sets of representations, practices and performances through which meanings and identities are produced, discursive practices can be difficult to pin down. However, these passages from Williamson usefully highlight some of the processes involved in the construction of the weaver and millgirl. Drawing on the differences in dress and insinuating differences in moral character, Williamson refers to a ‘caste system’ between the two groups; a distinction described as “there in actual fact.” Furthermore, he suggests that this ‘caste system’ was embedded in different geographies; not only those of the workplace (the mill and the factory) but also beyond, as the two groups took different sides of the street. Hence, these workplace types were naturalised and performed by the workers themselves as millgirls responded with derogatory comments to the idea that they attend evening classes with weavers. As a president of the DDMFOU, Williamson’s views were respected and given authority. After all, it was Williamson, through his endeavors with the Union, who had worked with, and on

⁷ *People’s Journal*, 11 October 1922.

behalf of the millgirls, and it was thus Williamson who purportedly 'knew' them well.

According to Mary Cowling the "[s]election of types from the contemporary scene satisfied an interest which was recognized at the time as anthropological, and which was stimulated by constant growth and diversification of the city populations of the period."⁸ She continues:

the rapid growth of the population in its modern, industrial form, and the consequent social developments and problems arising from it, the way in which different classes were thrown together without ceremony in public places; the striking contrasts arising from those chance meetings; all contributed to the intensification of feelings of curiosity, even antagonism towards strangers thus encountered.⁹

Drawing specifically on the use of physiognomy, the 'science' of reading moral character from facial and bodily types (which Cowling suggests was readily understood by most Victorians), the middle and upper classes could engage in the social and economic judgement of individuals and groups simply by watching the urban scene. The stereotyping of urban characters was forged mainly through outward appearance and was seen as a necessary exercise in understanding the growing industrial city and the characters that inhabited it. Although this chapter does not emphasize physiognomical distinctions, and focuses on texts rather than art, I suggest that Cowling's exploration of urban stereotyping helps us to understand the construction of workplace types in Dundee.¹⁰

One 'type' that resonates in contemporary accounts of the Victorian and Edwardian city is the prostitute. The discursive construction of the prostitute has

⁸ M. Cowling, *The artist as anthropologist* (Cambridge: Cambridge University Press, 1989) 5.

⁹ *Ibid.*, 120.

¹⁰ Although I want to inject a greater consideration of gender into Cowling's social class focus.

been explored by a number of urban historians, including the art historian Lynda Nead. Drawing on a wide range of visual images and written accounts, Nead pinpoints the importance of a number of key visual terms: dress, bodily condition, location, and looks, through which prostitutes, and hence *the* prostitute, were identified.¹¹ Although these themes could be given different meanings in different images and texts, the basic elements used to represent the prostitute were repeated again and again in a wide variety of contexts.¹² These same ideas and techniques can usefully be employed to consider working women in Dundee, and here I take Nead's lead to explore how the differences between working women were constructed through a set of recurring elements, subsumed under two identities and opposing binary distinctions.

Weavers were known as the 'aristocrats' of the workplace, and as one manager remembered, were, as a rule,

not only well conducted, but well dressed. Their occupation is healthy and favourable to good physical development. Thus there was one we were in the habit of calling "the Little Duchess", she was so stately in her movements, and had such an aristocratic carriage of her handsome little figure.¹³

As Williamson noted above, weavers were "[n]eat and smartly dressed to the tips of their gloves and their be-ribboned hats,"¹⁴ and the *DYB* stipulated that the weaver was a "respectable, well-dressed, industrious girl."¹⁵

¹¹ L. Nead, *Victorian Babylon: people, streets and images in nineteenth-century London* (Yale University Press: Yale, 2000). See also, J. Walkowitz, *City of dreadful delights: narratives of sexual danger in late-Victorian London* (London: Virago Press, 1992).

¹² Nead, *Victorian Babylon*.

¹³ *People's Journal*, 11 June 1881.

¹⁴ *People's Journal*, 14 October 1922.

¹⁵ "Women's Work and Wages in Dundee", *DYB* (for 1903)154.

By contrast, “[b]elow the surf of industrious, respectable and respected factory workers ebb and surge the flotsam and jetsam of the stream - the millworkers.”¹⁶

Williamson deliberated over the millworkers “with shawls over their shoulders, all bare-headed and some even bare-footed.”¹⁷ The millgirl was seen as a problem. As Williamson so unequivocally put it:

Opinions may vary according to the point of view as to which is the most serious of Dundee’s social problems, as far as I am concerned, that which has demanded my closest attention during the past 50 years is *the Dundee mill girl*..... Fifty years ago *she* was a problem, and *she* is a problem still.¹⁸

As this passage suggests, these images were familiar to Dundonians:

One has little difficulty in marking them out as they pass to and fro to their work. The mass of frowsy hair reaching to their eyebrows, the loud talk, the bare arms, the “shawlie”, and the striped wincey petticoat are all familiar to us. It seems to be a recognised fact that “Once a millworker aye a millworker.”¹⁹

Features of dress, look, and body recur in these opposing definitions of the weaver and millgirl. Referring to how meaning is inscribed on bodies, Grosz argues that bodies,

speak, without necessarily talking, because they become coded with and as signs. They speak social codes. They become *intextuated*, narratized; simultaneously, social codes, laws, norms, and ideals become *incarnated*.²⁰

Such practices of inscription are particularly prevalent in descriptions of these workplace characters. Through clothing, the weaver, in contrast to the spinner or millgirl, dressed ‘properly’ with hats and gloves defining her femininity. However, clothing was just one way in which the body was read. Movements of

¹⁶ *Ibid.*

¹⁷ Williamson, *People’s Journal*, 14 Oct 1922, italics added.

¹⁸ *Ibid.*

¹⁹ “Women’s work and wages in Dundee”, *DYB* (for 1893) 176.

the body were interpreted as 'aristocratic' for the weavers, indicating a respectability of behaviour and a superiority of character. In this way, although weavers were working women, and were publicly 'consumed' in this process of identification, their dress and deportment spoke of the private, the inconspicuous, the discipline implicit in the wider discourses of Victorian and Edwardian femininity.

In contrast, through her dress, behaviour and habits, the millgirl was deemed 'other', not only to understandings of what it was to be a 'proper' woman, but also more locally, to the demure and modest figure of the weaver. As Iris Marion Young suggests:

When the dominant culture defines some group as different, as the Other, the members of these groups are imprisoned in their bodies. Dominant discourse defines them in terms of bodily characteristics and constructs those bodies as ugly, dirty, defiled, impure, contaminated or sick.²¹

As millgirls transgressed the boundaries of 'respectability' their bodies were constructed as abject. Walker, for example, wrote that, "[t]he revulsion which the millgirl could engender in critics was strongly linked with a mill patois incomprehensible except in swear words, her infuriating hilarity, and her pretence in matters of dress."²² With unruly bodies, dress and behaviour, the millgirl defied the unwritten rules of what it was to be a woman, for which she was scorned by an array of social commentators. Constructing these rigid, dichotomous identities was a means by which social commentators could make sense of all working women, and fix them in specific locations.

²⁰ E. Grosz, "Bodies and knowledges: feminism and the crisis of reason", in L. Alcoff, and E. Potter (eds.), *Feminist epistemologies* (London: Routledge, 1993) 187-215, 199, italics in original.

²¹ I. Young, *Justice and the politics of difference* (Princeton: Princeton University Press, 1990)126.

²² Walker, *Juteopolis*, 18.

However, beyond the realm of representation, these codes of dress, behaviour, movement and conduct were internalised by the workers themselves. In her study of factory life in Germany, Canning provides the story of a woman who inadvertently violated the dress code:

Her appearance caused a sensation on the streets and in the mill, distracted several women from their jobs, and provoked demands that she remove the hat or leave the workplace.²³

She goes on to suggest that the display of the body through the manner and style of dress was an important manifestation of collective identities among women workers, with shopfloor 'fashions' signifying workers' awareness of their place in both the production process and the 'moral regime' of the mills.²⁴ Working women created, internalized and regulated identities within the workplace.

By drawing upon Judith Butler's ideas of performativity, I want to consider how these workplace types were performed by the workers themselves. Butler extends and revises Foucault's work on discourse by exploring the ways in which we 'do' gender. Butler explains this process of 'doing' as "the repeated stylization of the body, a set of repeated acts within a highly rigid frame that congeal over time to produce the appearance of substance of a natural sort of being."²⁵ This is the process that Butler alludes to as performative:

acts, gestures, enactments, generally construed, are *performative* in the sense that all the essence or identity that they otherwise purport to express are *fabrications* manufactured and sustained through corporeal signs and other discursive means. That the gendered body is performative suggests that it has no ontological status apart from the various acts which constitute its reality. This also suggests that if the reality is fabricated as

²³ Canning, *Languages of labor and gender*, 311.

²⁴ *Ibid.*, 310.

²⁵ Butler, *Gender trouble*, 33.

an interior essence, that very interiority is an effect and function of a decidedly public and social discourse.²⁶

In contrast to the notion of performance, performativity contests the notion of the subject. As Butler suggests in an interview, “[w]hat I’m trying to do is think about the performativity as that aspect of discourse that has the capacity to produce what it names. Then I take a further step ... and suggest that this production actually always happens through a kind of repetition and recitation. ... Performativity is the discursive mode by which ontological effects are installed.”²⁷ Although Butler is referring generally to the performativity of gender, I am drawing on her ideas here to look specifically at how women workers in Dundee were implicated in the production and reproduction of identity.

The importance of dress was remembered by both weavers and spinners as being important. As one weaver recalled, “[y]ou wouldn’t have dreamed of going to the factory without a hat, you would have been a scruff.”²⁸ This was reiterated by a mill worker who claimed that, “the weavers were the toffs” as they “used tae go tae their work as if they were going tae a party.”²⁹ As another spinner remembered:

[T]hey were different from us altogether, they never looked us, see we were low mill hands and we used to just run, we’ just our jackets on, nae hats nor gloves. And they thought they were something special because they did the finishing off the jute. An’ they used tae walk pass you as if you were something low. An’ they were it. An’ if you said tae them, ‘an’

²⁶ *Ibid.*, 136.

²⁷ J. Butler, *Interview*, cited in J. Wiles, *Performative production of homes as places for care: narrative experiences of people caring informally for seniors in Kingston, Ontario, Canada*, (Ontario: unpublished PhD thesis, Queens University, 2001).

²⁸ Odyssey interviews.

²⁹ *DOHP* tape 040.

what is your occupation?' - 'oh, I'm a weaver'. You see that distinction was there. Even when they were working folk, there was a distinction.³⁰

Weavers and millgirls 'did' work differently, purposely accentuating their differences through dress. Such performativities asserted identities by creating divisions and antagonisms between the two groups.

Differences were also reproduced through the different histories of spinning and weaving. Although spinning had traditionally been the preserve of women, weaving had been a 'man's job'. Only with the advent of the powerloom and new working conditions had men been replaced by women (see chapter 3). Weavers therefore sought not only feminize the job (make it their own), but also to differentiate themselves from men and other groups of women through the wearing of hats and gloves. The weavers themselves sought to construct themselves as a 'class superior' to the millworkers. By asserting a femininity upon a traditionally male job, the weavers made women's work respectable, a respectability constructed, in part, with reference to the mill workers.

These dual identities also provided working women with agency, and importantly, a position from which to resist the patriarchal-capitalist relations of the jute industry. Identities and performativities translated into important positions with regard to workplace relations. Two letters in the local press give us a good sense of this. The first reports:

I saw a letter in your paper a few weeks ago by one "Fairplay" who appeared to be offended because there has been some notice taken of us spinners lately, and who thought that spinners were well enough paid.....I would advise "Fairplay" in the future to confine herself to

³⁰ Odyssey interviews.

something she understands, and not attempt to write about anything in which her ignorance is so plainly palpable.³¹

The letter continued, “[i]t is time that the spinners of Dundee should rouse themselves and try to improve their condition....What is there to hinder them from forming a Union of their own, having no members in it but spinners?” And in a second letter in the *People’s Journal*, a weaver remarked:

*The weaver must turn out the very best cloth, and she has spinners’ bad work, winders’ knots on the yarn, bad cops, and big bobbins. Everything must be put right on the loom, and no extra wage given.*³²

Types were consolidated through antagonistic workplace relations and were used as positions from which to bargain and negotiate. Whether through maintaining dress codes or through strategies of resistance, women’s identification with the processes of stereotyping helped to unite them as working women - working women who came to act, “in such a way that they became, what then turns out, in some sense to have been their ‘nature’.”³³ Through the performative, identities were reconfirmed and renegotiated by the women themselves. And as some of this implies, performativity contained an implicit spatiality.

Gregson and Rose have re-worked Butler’s ideas to consider how identities are produced by and through action in space.³⁴ Particularly in the case of the weavers and the spinners, the differences between the two groups were not free floating, but grounded in and reflective of real workplace segregations and conditions. Although chapter 3 outlined the different production processes and buildings, and how the physical movements of female employees, coupled with restrictions in

³¹ *People’s Journal*, 29 Sept 1888, letter to the editor from “A spinner lassie”.

³² *People’s Journal*, 3 Mar 1906, italics added.

³³ Culler, *Literary theory*, 113.

³⁴ N. Gregson and G. Rose, “Taking Butler elsewhere: performativities, spatialities and subjectivities”, *Environment and Planning D*, 18 (2000) 433-452.

the knowledges and communications available to them, contrasted with that of the supervisory male workers, I gave what Pratt and Hanson called 'spatial isolations' only a cursory acknowledgment. I will now say more about how the geographies of women employees were separated from both one another and the owners and directors. It is at the meso-scale in the divisions between the mill and the factory, that the forging of differing and competing identities for working women can be clearly seen. As Pratt and Hanson have suggested, these workplace geographies are vital:

In many workplaces, not only are women and men, and women with different class and racial characteristics employed in different occupations; they spend their work days in spatial isolation from each other, thereby further circumscribing their lived experience.³⁵

Weavers and millgirls occupied different workspaces, the factory and the mill respectively. As Gordon has suggested this physical separation "clearly demarcated the territories of the two workforces,"³⁶ so much so that as one weaver remembered, "I was never in a mill in my life. I'd never even seen the inside of the mill. And when you went into your work, the factory was on one side, the mill was on another side."³⁷ Mills and factories were viewed as very separate places, and their separation produced a particular geographical imagining of workplace roles and identities with two quite separate workforces.

As Williamson observed:

Those different departments so dependent on each other for being and sustenance, and tied together by the relations aforesaid, have comparatively little social affinity, and the different class of workers persist in a sort of clannish separation, however much they may know of their mutual dependencies. Many friendships do exist between individuals, but the sections have little or no sympathy with one another.³⁸

³⁵ G. Pratt and S. Hanson, *Gender, work and space* (London: Routledge, 1995) 11.

³⁶ Gordon, *Women and the trade union movement*, 156.

³⁷ Odyssey interviews.

³⁸ *People's Journal*, 11 June 1881.

As he suggested, this segregation spilled beyond the factory and mill gates, with weavers and millworkers taking opposing sides of the street.

With transfers from the mill to the factory practically unknown, a strong horizontal segregation developed in the jute industry.³⁹ This segregation was due largely to the processes of apprenticeship. Although weaving was not officially recognised as skilled work, there was an informal apprenticeship which involved the young girl entering the weaving sheds to serve her time as an 'ingiver'. During this period which ranged from a minimum of six weeks to one year, depending on the availability of the loom, she would work alongside a fully fledged weaver, observing, servicing, and learning the necessary skills.⁴⁰ By contrast, many spinners began work in the mill as children, starting out as either shifters or piecers, and eventually working their way up to become a spinner. In the mill, there was no automatic route of progression from one job to another, and the half-time system gave the jobs less stability and the appearance of being less formal and less skilled.

In addition to these 'spatial isolations' and 'apprenticeship' processes, weavers and spinners were paid differently (piece-rates and set rates respectively), and worked in different environments (factory work was clean, whereas mill work was dirty). Such differences were crucial in the formation of workplace hierarchies. When explaining why the weavers had the reputation of being a class superior to other workers, one mill manager wrote:

This may be attributable not alone to their having comparatively light and clean work, but more probably on account of the individuality of the

³⁹ Walker, *Juteopolis*, 44.

⁴⁰ This is explained by Gordon, *Women and the trade union movement*, 148.

machine they attend. It is more under their control, and is more affected, by the individual character and attention than any on the others. The nearest to this is the warping mill, and therefore we find warpers reaching the same as the weavers in social and educated status.⁴¹

As piece-workers, weavers' earnings were dependent upon their own exertions and although this made their wages more variable, it connoted a degree of control. As one spinner reflected upon the interpretation of this difference in payment, "the weavers aye said they were better than the spinners.... 'cause they made their own pay, but we only had set pay, an' we used tae say we were better workers than them."⁴² In this way, weavers and spinners became associated with and constructed around a set of dualities which had the factory and the mill as a prime point of reference.

The above quotes also distinguish between the cleaner work of the weavers and the dirt of the mill. From the preparing stages of the jute, dust was rife in the mills. Again this clean-dirty division denoted a hierarchy amongst workers. As one weaver, explaining why they felt a cut above the spinners, pointed out, "I mean we were never what you would say really dirty, the way they got dirty, because they were covered in mill dust when they came out of their works."⁴³ Dirt was used as a signifier of imperfection and inferiority. Although it had practical associations, these conditions were coupled with moral associations, making it a potent marker of social difference amongst weavers and spinners.⁴⁴

Through the powerful environmentalism of the Victorian city, the *DYB* remarked:

The nature of people's occupation often has a powerful influence in either encouraging dirty or cleanly habits. Thus, although there are undoubtedly

⁴¹ *People's Journal*, 11 June 1881.

⁴² *DOHP* tape 003.

⁴³ Odyssey interviews.

⁴⁴ D. Sibley, *Geographies of exclusion: society and difference in the West* (London: Routledge, 1995) 19-24.

many exceptions, operatives who do the disagreeable and dirty work in our local industries appear to lose all respect for their appearance, and do not take the trouble to brush their garments or their hair before emerging from the mills. The same negligent habit pervades their homes, and reveals itself in dirty floors, stairs, and beds, and children with filthy garments and unwashed bodies. The children brought up in such atmospheres naturally have no great love for cleanliness, and do not feel, it is to be presumed, miserable when surrounded by dirt and squalor. The want of facilities for bathing in their homes and total lack of good example ought to be considered more than it is when denouncing the slum-dwellers for their filthy habits.⁴⁵

A moral geography of the city could be mapped from an examination of workplace roles. A dirty workplace environment engendered dirty habits, and according to social commentators, this extended to the care of home and body.⁴⁶

However, beyond this dualistic reading of the workplace, differences within these groups of workers were occasionally recognised and discussed. The mill itself was split between the 'High mill' and the 'Low mill' and according to the DYB:

The term "low mill" has a bad odour about it, and the general public imagines that it is so called because of the class of workers employed, but this is entirely a mistaken idea.

The article explained that due to the design of the buildings and the weight of the machines needed to break up the raw jute, "[t]he "Low mill" ... had a geographical and not necessarily a social or moral significance."⁴⁷ However, "[w]hile this is the primary meaning of the term, unfortunately there is some justification for the popular notion. In the spinning and reeling departments skilled labour predominates, but in the low mill unskilled labour is the rule." The article went on to explain that, in contrast to the need to start young in spinning and reeling, in the preparing department there was no such need "and as a

⁴⁵ "Dundee's mill and factory workers", *DYB* (for 1901) 208.

⁴⁶ See F. Driver, "Moral geographies: social science and the urban environment in mid-nineteenth century England", *Transactions, Institute of British Geographers* NS 13 (1988) 275-287.

⁴⁷ "Women's work and wages in Dundee", *DYB* (for 1903) 154.

consequence the low mill, with very few exceptions, is staffed by women over 18 years of age.”⁴⁸ It was partly for these differences that there was a “very definite snobbish difference even in the jute-mill” with a hierarchy stretching from the breakers to the spinners.⁴⁹ In this way, the weaver-millworker division was occasionally broken down with the different gradients of mill worker ‘exposed’.

Gillian Rose has argued that, “space is a doing, ... it does not pre-exist its doing, and that its doing is the articulation of relational performances.”⁵⁰ Rather than view space merely as a stage on which identities are performed, or as a container within which identities are bounded, I have tried to point to the mutual constitution and performativity of both spaces and identities. As Rose and Gregson suggest, spaces “do not preexist their performances, waiting in some sense to be mapped out by performances; rather, specific performances bring these spaces into being.”⁵¹ The understandings of and meanings given to the mills and factories were created through the performative identities of the weaver and millgirl and their relation to one another. As mills defined the millgirl, so the millgirl defined the mill and likewise for the weaver and factory. Identities brought these spaces and their meanings into being. This provides an unstable notion of spatiality, as fluid identities were constantly creating the spaces within which they operated.

⁴⁸ *Ibid.*

⁴⁹ *DOHP* tape 021.

⁵⁰ G. Rose, “Performing space” in D. Massey, J. Allen and P. Sarre (eds.), *Human Geography Today* (Cambridge: Polity Press, 1999) 247-259, 248.

⁵¹ Rose and Gregson, “Taking Butler elsewhere”.

The Married Working Woman

There are in this busy centre of the industry many thousands of women engaged in the preparation and weaving of jute alone, who pass their lives in the perpetual whirl and roar of mill and factory, so that we cannot afford to be independent of the subject, even if we would. For the daily work and surroundings of these women must, perforce, be of interest to us when we remember the influence they have for good or evil on the homelife and whole social position of the worker.⁵²

In addition to the weaver and millworker, another figure which appeared in workplace commentary was the married working woman. Preoccupying social commentators even more than the weaver-millworker division, the married working woman became an important concern to a range of state and philanthropic institutions.⁵³

One peculiarity of the jute industry's workforce was the proportion of married women who worked. In 1905, a survey of 3,039 households carried out by the DSU found that approximately half of the city's married women were working.⁵⁴ Miss Irwin, author of the 1893 report by the Royal Commission on Labour on the employment of women, suggested that there were two features exclusive to the jute industry which explained the larger percentage of married women in the workforce than in other cities. First, the employment of child labour in the jute spinning mills enabled women to work alongside their children; and second, the opportunity afforded in the preparing departments of the jute industry for the employment of unskilled and casual labour, attracted married women in necessitous circumstances.⁵⁵ In one jute works, which was considered "large and representative", Miss Irwin found the following employment statistics:

⁵² "Female Industries in Dundee", *DYB* (for 1884) 61.

⁵³ The focus of chapters 5 and 6.

⁵⁴ DSU, 1905.

⁵⁵ Royal Commission on Labour, *The employment of women*.

Table 6: Percentage of Married Women in the Various Production Processes.

<i>Job</i>	<i>% of Married Women</i>
Preparers	97
Spinners	19
Warpers and Reelers	32
Winders	14
Weavers	34

Source: Royal Commission on Labour, *The employment of women* (London, 1893)

Situated in the low mill, the preparing stages involved unskilled work, and could be taken up by the casual worker when necessary. The *DYB* related this situation in the preparing departments:

It will thus be seen that the mill in many instances is a harbour of refuge for destitute and distressed women. Many sad stories of privation and hardship could be related. The saddest of all is a mother toiling while her children are uncared for at home and her husband is a deadweight upon her. In no other employment is the blighting effects of the drink curse more apparent than in the low mill.⁵⁶

These women were represented as the most desperate figures, forced to work due to incompetent husbands.

This sentiment was echoed in a report edited by Clementina Black in 1915 entitled *Married Women's Work*. Focussing specifically on England, it suggested that the paid employment of married women was to be deplored, and it placed married women into one of 4 categories:

- (A) Those who, although family income is inadequate, do not earn.
- (B) Those who, because income is inadequate - whether from lowness of pay, irregularity or failure in some way, such as sickness, idleness, drink or desertion on the part of the husband - do earn.
- (C) Those who, the family income being reasonably adequate, do not earn.
- (D) Those who, although the family income is adequate for the supply of necessities, yet earn.⁵⁷

⁵⁶ "Women's work and wages in Dundee", *DYB* (for 1903)154.

⁵⁷ C. Black (ed.), *Married women's work* (London: Garland Publishing, 1915 (1980 edition)) 1-2.

These figures could be seen in Dundee with (B) and (C) causing most comment. In 1903, the *DYB* ran an article entitled 'The Working Poor of Dundee' within which these two 'types' of married women were identified:

With wives, whose husbands are out of work, and who because of this circumstance are compelled to attend the loom or the frame in order that the family dependent upon the parents may be maintained, every right-thinking person will sympathise.

However, the article continued:

I am afraid there is another class - the married women who seek employment for the purpose of accumulating sufficient funds to tide over the holidays..... Many a married woman whose husband is earning "a living wage" prefers to work ten hours daily in a mill and allow her family and home to go to ruin simply because "its so dull staying at home." Mission and district visitors and nurses hear the same story on every hand. The women have no resources within themselves; no instincts of cleanliness, order or management; no ambition to keep the home, though humble, neat and tidy, or the fare, though frugal, tempting and nourishing, or their children's clothes, though shabby, in good repair.⁵⁸

These suggest it was not simply the fact that married women worked that caused concern, but, more fully, how paid employment affected their roles as wives and mothers. It was neglect of the home and children that concerned social commentators and induced many projects of social and moral reform. Employers however, considered married working women to be good workers. Giving evidence to the Royal Commission on Labour in 1893, one jute manager remarked that the "married women are the best and steadiest workers, and they have a very good influence over the rest of the people."⁵⁹ Married women therefore were not prevented from working. On the contrary, in some works they were actively encouraged for the elevating effect they had on those around them. Rather than being prevented from working, married working women were

⁵⁸ "The working poor of Dundee", *DYB* (for 1903)147.

⁵⁹ "The Labour Commission - the state of the jute industry", *DYB* (for 1893) 129.

brought under close scrutiny so that both their working and homes lives could be monitored.

Extending Geographies and Identities

I have explored how vivid characters emerged from the mills and factories in Dundee. I now want to extend this analysis a little further by exploring how workplace types were translated through urban space more generally and were reworked as urban types. With regard to her work on London, Nead notes that “[s]ubjectivity was not already in place when men and women occupied the streets of Victorian London, but was formed through the encounters, interactions and experiences of that occupation.”⁶⁰ The identities of working women did not emerge intact and fully formed from the workplace but were forged as women occupied ‘public’ space and, in contrast to the mills and factories, the very visible space of the streets. As the so-called public world of work remained hidden behind work gates, binary incursions became more explicit in working women’s movements and behaviours beyond work.

Nead notes that, “the streets of the city were the most visible signs of its progress or degeneration.”⁶¹ Street-life was seen as an indicator of urban civility and, during the Victorian period, came under increasing scrutiny and surveillance.⁶² Sanitary reformers aimed to produce towns and cities with ‘well-ordered topographies’, and Dundee’s own Improvement Act of 1871 was comprised of some twenty schemes for the rearrangement and reconstruction of the streets.

⁶⁰ L. Nead, “Mapping the self: gender, space and modernity in mid-Victorian London” in R. Porter (ed.), *Rewriting the self: histories from the Renaissance to the present*, (London: Routledge, 1997) 165-172, 167.

⁶¹ Nead, *Victorian Babylon*, 16.

Concerned with the physical conditions of the city, the act saw the removal of narrow streets and thoroughfares as well as a number of narrow closes and high buildings, making way for new improved and wide streets.⁶³ This ordering and rationalization of the urban landscape was aimed at creating a safe and healthy passage through the city.

Contemporary texts took street-life as a very visible indicator of municipal progress. In 1900, for example, William Kidd published *Kidd's Guide to Dundee & District*, as "a reliable authority on the present condition of Dundee."⁶⁴ It provided a detailed account of the city, deftly describing its urban morphology. Similarly, for the visitor, the city was a place of exploration, of sightseeing. When the BA met in Dundee in 1912, it provided an excursion book for its members. Suggesting that one "may "see" Dundee in a day", it provided a route around the city from the High Street to Balgay Hill, pointing out the streets and buildings of historic interest.⁶⁵ However, in neither of these accounts was there any mention of the city's inhabitants, its overcrowded houses, and the many 'problems' of the streets that so many social commentators eluded to.

However, Dundee's social 'problems' did strike the first time visitor to the city. As D'Arcy Thompson noted about the arrival of the professors appointed to UCD:

⁶² A. Croll, "Street disorder, surveillance and shame: regulating behaviour in the public spaces of the late Victorian British town", *Social History*, 24 (1999) 250-268.

⁶³ In the *DYB* (for 1891), 123, there was an article entitled "Dundee's development - interesting narrative of municipal progress", which chronicled the improvements of the city.

⁶⁴ *Kidd's guide to Dundee*, 'publishers note'.

⁶⁵ *Excursion guide* (Dundee: BA, 1912) n.p.

Of all those young professors who had just come to town, I doubt if there was not one who was not shocked and saddened by the poverty which Dundee openly displayed.⁶⁶

In addition to these distressing encounters, the unregulated space of the street was envisaged as a site of danger, a place for deviant and corruptive behaviours. In comparison with the clearly defined spaces of home and work, the streets had an ambiguous 'statelessness', a 'free' space with no immediate authority to control its occupants.⁶⁷ Croll and Rose have questioned this perceived freedom. Croll argues that although being 'free' the streets became sites of strict surveillance, not only from the police but through a more far-reaching (self)disciplinary gaze.⁶⁸ Extending this Foucauldian reading, Rose suggests that a variety of technologies of spaces and gazes were used to govern the conduct of individuals 'at liberty'. He suggests that in the nineteenth century, "the street became a space of 'well regulated liberty' as a play of normative gazes captured each 'free' individual."⁶⁹ The streets were constructed through a set of norms through which behaviour was monitored. Here I take on these meanings of street life to explore the ways in which working women in 'public space' were scrutinized.

Leisure times and spaces, particularly the street, came to be seen as problematic. According the DSU, "it was the street which led to 'pitch and toss', gambling, betting, drink and other temptations."⁷⁰ The DSU legitimated these findings by citing the 'authoritative' work of Lord Alverstone who had found that, second

⁶⁶ D. W. Thompson, *Fifty years ago and now: a presidential address* (Dundee, 1938) 4.

⁶⁷ M. Billinge, "A time and place for everything: an essay on recreation, re-Creation and the Victorians, *Journal of Historical Geography*, 22 (1996) 443-459.

⁶⁸ Croll, "Street disorder, surveillance and shame". In this article, Croll suggests that in addition to the police, seen as the bastions of street control, through the writing of articles on urbanites and their behaviours, the local newspapers became an important force in surveying the streets. This process was enhanced through a self-surveillance carried out by the townspeople themselves as they wrote to newspaper editors to inform them of misdemeanors in public space.

⁶⁹ Rose, "Towards a critical sociology of freedom", 217.

only to drink, the causes of crime and moral and physical deterioration amongst the workers in the country, were the difficulties of finding healthy recreation and innocent amusement for the working classes, and “[i]f that recreation was not provided they only had the street.”⁷¹

Beyond traditional notions of social control with the police as agents of bourgeois morality, citizens themselves became actively involved in this process of surveillance. Here the local newspapers became an important medium through which urban observations could be recounted.⁷² In 1905 Mr. Geil, a travelling missionary, gave a lecture in Dundee’s Kinnaird Hall entitled “In Darkest Dundee.” As the *Dundee Advertiser* paraphrased him:

Unnameable things took place in some of the dark lanes of Dundee by ten o’clock at night, and he submitted to them the advisableness of putting in some electric lamps and throwing the blaze of light into these dark places.⁷³

Similarly, in 1912, a ‘visitor’, in the city for the BA meeting, sent a letter to the *Dundee Advertiser* expressing his concerns:

I feel irresistibly impelled to ask whether the residents of Dundee appreciate fully what is going on in their midst - by inference every Sunday night.

He made reference to the “indecent” behaviour amongst boys and girls, “of a character which would not be permitted for a moment in any other town which I have visited.”⁷⁴ The *Dundee Advertiser* drew the attention of the reading public to what was going on in certain places within the city and at certain times. These

⁷⁰ DSU, *Report on housing and industrial conditions*, xiv.

⁷¹ *Ibid.*

⁷² Croll, “Street disorder, surveillance and shame”. Croll suggests that this reading breaks away from a traditional class analysis as both the working and middle classes could be both subject to and made object of the gaze. However, here I want to take these ideas to show that this project of surveillance had important gendered implications.

⁷³ *Dundee Advertiser*, 5 Oct 1905.

⁷⁴ *Dundee Advertiser*, 10 September 1912, letter from ‘A Visitor to Dundee’.

comments were provided by one anonymous figure (yet automatically respected due to his BA connection), and one named missionary on a very public trip to the city. As men, they were free to move around and explore the city at will, without inviting adverse comment. And as strangers, they were seen to present an objective account of the city, conjuring up images of danger, deviancy, and transgression.

As such, they were indicative of the nineteenth-century flâneur, a male figure of urban exploration. As a figure who could stroll at will through the expanding city, the flâneur was identified in Baudelaire's accounts of nineteenth-century Paris.⁷⁵ In a similar way, the articles in the *DYB*, the findings of the DSU, and the ambitions of the photographic survey (mentioned in chapter 1), traded on the idea that 'knowing' the city was a predominantly bourgeois male pleasure.⁷⁶ As Walkowitz suggests, "[i]t established a right to the city - a right not traditionally available to, often not even part of, the imaginative repertoire of the less advantaged."⁷⁷ The flâneur represented an objective spectator, providing an array of anecdotal evidence to his explorations and 'findings'. *He* was indicative of and produced through bourgeois notions of 'public' and 'private', with women tied to the latter. With these binary divisions constructed as natural, the designation of spaces as either public or private has pervaded urban theory, and work to circumscribe understandings of women. Feminists have explored these divisions by reclaiming the feminine side of the binary and making visible previously

⁷⁵ See Nead, *Victorian Babylon*, 67-71.

⁷⁶ However this figure of the male flâneur was being increasingly challenged as the city was beginning to open up to an array of new urban actors which included the journalistic practices of the special lady investigators (as mentioned in chapter 1) and the role of middle class women in the charity and philanthropic movement (see chapter 6).

⁷⁷ Walkowitz, *City of dreadful delights*, 16.

invisible processes and patterns, and by demonstrating how these boundaries are and were more blurred than the dichotomy allows.⁷⁸ Feminist research on the Victorian and Edwardian city has therefore explored how this male gaze prescribed women certain roles, but how this was countered by the women themselves.

Accounts from urban voyeurs stressed the transgressive, with women who transgressed the public-private binary, notably the prostitute or 'street-walker', given the most attention. As Stallybrass and White suggest:

As the permeable and transgressed border between classes and sexes, as the carrier of physical and moral pollution, the prostitute was the object of considerable public inquiry as well as the object of individual preoccupation for respectable Victorians.⁷⁹

Urban historians and historical geographers have probed contemporary knowledges of the prostitute by deconstructing the writings of commentators and urban explorers⁸⁰, and this body of work has been useful in understanding the knowledges which circulated around working women in Dundee.

Nead observes that this preoccupation with the prostitute "provides a somewhat sensational image of the Victorian City: one peopled by men and unrespectable women"⁸¹, which works to exclude understandings and insight into other women's relationship with urban space, or as Wilson puts it:

⁷⁸ Women and Geography Study Group, *Feminist geographies, explorations in diversity and difference* (Essex: Addison Wesley Longman, 1997)115.

⁷⁹ Stallybrass and White, *The politics and opetics of transgression*, 22.

⁸⁰ In historical geography, the figure of the prostitute has been explored by Ogborn who traces the institution of the Magdalen Hospital in the reform of prostitutes, and by Howell who traces the varying construction of prostitution and sexuality through the proposed closure of Cremorne Gardens. See Ogborn, *Spaces of modernity*, chapter 2, and P. Howell, "Victorian sexuality and the moralisation of the Cremorne Gardens", in Sharp et al., *Entanglements of power*, 43-66.

⁸¹ Nead, "Mapping the self", 167.

Prostitutes and prostitution rear continually in the discussion of urban life, until it almost seems as though to be a woman - an individual, not part of a family or kin group - in the city, is to become a prostitute - a public woman.⁸²

Wilson therefore tries to re-read urban space as an opportunity rather than constraint for women, suggesting that “[i]t is a matter for emphasis whether one insists on the dangers or rather the opportunities for women in the cities.”⁸³ She suggests that it is not only important to counter these male-dominated accounts of urban space, but that women had a great deal more freedom in the nineteenth and twentieth centuries, as the city, in contrast to small towns and villages with their strict and hierarchical ties, offered many women new kinds of freedom and the possibility of independent existences.⁸⁴ The city was therefore a place of adventure, pleasure, excitement and risk for women and became a significant location in women’s escape from male dominance and bourgeois norms of society.

By the end of the nineteenth century working women in Dundee had become increasingly visible, passing through the streets on their way to and from work. A re-reading of the streets in Dundee, can invert the seemingly one-way male gaze. As demonstrated in chapter 4, during strike periods, movement through the city was made explicit as women marched on the Cowgate; an example of Dundee women’s capacity to ridicule and harass employers. In leisure time, too, this gaze was inverted as women spectated upon other urban actors. As remembered, “If you had no money you used to say to your chum - “Come on,

⁸² Wilson, *The sphinx in the city*, 8.

⁸³ E. Wilson, “The invisible flaneur”, *New Left Review*, Jan/Feb (1992) 90-110, 191.

⁸⁴ Wilson, *The sphinx in the city*.

we'll go down the Overgate and see how many fights there are tonight".⁸⁵ Therefore, as Nead suggests, women were not necessarily "passive victims of a voracious male gaze, but they can be imagined as women who enjoyed and participated in the 'ocular economy' of the city; they were women who looked at and returned the gazes of passers-by."⁸⁶ However, this very movement and behaviour worked to both simultaneously destabilise and re-emphasize the significance and position of the urban explorer and social commentator as women's transgressions into public space were made visible.

Women's presence on the streets brought to the fore the dimensions of identity that were associated with consumption and display rather than production. As George Cadbury remarked in his 1906 study of women's work and wages:

Both inside and outside the factory the lives of working girls are too often barren of all that gives wholesome relaxation and brightness. It is this want of change and recreation that makes them wild and restless and inclined to seek undesirable amusements.⁸⁷

Women's presence on the streets led to every aspect of their lives being scrutinised and made available for public consumption.

As middle-class commentators repeatedly complained of the physical and visual aggressiveness of prostitutes, in Dundee the same remark holds true for the millgirls, as descriptions of their work dress, behaviour and language suggest. Yet, as Canning writes of textile workers in Germany:

⁸⁵ Interview with Mrs Cumming, in Gordon, *Women and the trade union movement*, 162. According to Gordon, the Overgate area of Dundee was the "notorious haunt of down-and-outs, prostitutes and the 'rough' element."

⁸⁶ Nead, *Victorian Babylon*, 71.

⁸⁷ E. Cadbury, M. Matheson and G. Shann, *Women's work and wages: a phase of life in an industrial city* (London: Garland Publishing, 1906 (1980 ed.)).

While enforcing their own rigid, class-based code of dress in the mills, female textile workers frequently donned their prettiest dresses on Sundays and did not disdain hats, gloves, jewelry, or parasols. The discrepant dress codes of workdays and holidays delineated boundaries between work and leisure, between the public sphere of the factory and that of town and marketplace.⁸⁸

Similarly in Dundee, workday dress contrasted with weekend dress, as one former mill manager described in detail:

Their working days dress may be plain enough, even mean; but those girls on Sunday, and you will find them, eclipsing the families of the jute lord with the style of their outfit. Of course, no one has any business to complain of their use and abuse of what they have honourably earned. But waste is never wise, and may become positively sinful. On the other hand, see how some others mismanage their affairs. Through carelessness at first and indifference afterward, they are always behind the world. To pay for goods when they get them is reckoned an impossible thing. Their pass-book at the grocer's has their score only cleared for the past week's consumpt, and their tally with the clothier or milliner is no more than settled when the need new dresses, and this they live in perpetual debt, and buy at a perpetual disadvantage. Our working people are often sadly short of wisdom in the management of their affairs.⁸⁹

The mill workers' workday dress was scrutinised for being scanty and rough, but their love of fashion beyond work was also seen as problematic. Although fashions portrayed a femininity, this was represented in such a way that made it crude, brash and thus undesirable. Dress was also an indicator of women's use of wages, and as 'thrift' was implored, a love of fashion was seen as responsible for the culture of debt from which working women would struggle to escape. Again, as the mill manager from the *People's Journal* described:

The full hand leads to a loose style of management, and what with squandering on dainties for food, frequent evening entertainment, and expensive dress, the money melts out of their hands only too quickly.⁹⁰

⁸⁸ Canning, *Languages of labor and gender*.

⁸⁹ *People's Journal*, 18 June 1881.

⁹⁰ *Ibid.*

According to such descriptions, the earning woman did not have the sense to spend her money 'properly', in part because work was an 'unnatural' position for her to be in.

Working women's consumption of both food and drink were also highlighted.

Diet was scrutinised as the two passages below show:

It is obvious that if no female is left at home to prepare food for the workers when they return there is insufficient time, either at the breakfast or the dinner hour, wherein to cook anything other than that of the simplest character, hence the recourse to tea and bread. The perpetual tea and bread diet becomes naturally distasteful from time to time, and this is one of the reasons why men and women fall back on stimulants in the nature of spirits to gratify a jaded appetite.⁹¹

Where the house-mother works in a mill or factory, and hurries home to prepare a meal for herself and family, she feels she has only time to make a cup of tea, and this she does in a manner peculiar to her class. In many of the poorest dwellings a shilling gas ring is to be found, and lighting it she fills a teapot with cold water, throws the tea on the top, places it over the fire, and allows it to boil, and this strong poisonous decoction is hastily drink to accompaniment of white bread (brown bread is never used) and margarine of indifferent quality.⁹²

This diet of bread and tea, in conjunction with other causes was "leaving its impress on the operative class ... in impoverished and delicate-looking women and underfed and diminutive children,"⁹³ and "to gratify jaded appetites"⁹⁴, men and women turned to drink.

More than diet, it was this issue of drink which came to be a central concern. One image perpetually used to depict women and public space was that of the female drunk, and plate 16 shows the familiar sight of a millworker arrested for

⁹¹ "Dundee's mill and factory workers", *DYB* (for 1901) 204.

⁹² "The working poor of Dundee", *DYB* (for 1903) 146.

⁹³ "Dundee's mill and factory workers", *DYB* (for 1901) 203.

⁹⁴ *Ibid.*, 204.

LIKENESS AND DESCRIPTION OF PERSON REFERRED TO.

Register No. 4

Name and alias—**LILY CRUICKSHANKS**.

Residence—**Ward Road, Dundee.**

Place of business or where employed—**Tay Works, Dundee.**

Age—**35 Years.**

Height—**5 ft.**

Build—**Proportionate.**

Complexion—**Fresh.**

Hair—**Black.**

Eyes—**Hazel.**

Peculiarities or marks—**2 cut scars on front of right forearm, ring and little finger of right hand bent, little finger of left hand bent, lobe of right ear split.**



Profession or occupation—**Millworker.**

Date and nature of last conviction—**15th March, 1905. Contravention of Section 70 (1) of the Licensing (Scotland) Act, 1903—found in a state of intoxication and incapable of taking care of herself, and not under the care or protection of some suitable person.**

Court at which convicted—**Police Court, Dundee.**

N.B.—Should the above or any other known convicted person within the meaning of the previously quoted Section, attempt to purchase or obtain any excisable liquor, it is requested that the licensed person, or the person refusing to supply the liquor, will, as soon as practicable, give information of such attempts to the Police in order that the law may be enforced.

To... *George Cuthbert*
Publican
16 Leith Road
Dundee

Whose special attention is called to above.

This Notice served by me on the..... day of..... 190.....

Alex. Hutchison Constable

Plate 17: Police report and photograph of drunken woman.
 Source: D. Dewar, *Licensing act of 1903* (Dundee).

drunkenness.⁹⁵ Many blamed this on women's capacity for independent earning. The local newspapers, in their summaries of court proceedings, often covered the cases of millworkers hauled up for drinking. An example of this was on March 17th 1888 when Mary Scott, a millworker from the Overgate, made her 75th appearance in court, charged with being drunk and incapable.⁹⁶ According to Stewart,

Dundee on a Saturday night (Saturday was pay day) was bedlam let loose. It used to be said that the workers did more fighting in the Overgate on a Saturday night than the Black Watch did during all of the war.⁹⁷

And an article in Dundee's Mill and Factory Operatives noted that "[d]runk men are bad enough, but a helpless, besotted woman or young girl is infinitely worse; and, unfortunately, the latter are so common as to cause little comment."⁹⁸ Concerns over drunkenness were tied into concerns over the city's high levels of infant mortality, with one correspondent to the *Dundee Advertiser* calling for a total ban on the sale of alcohol to all women.⁹⁹ However, the number of women who drank was far fewer than the number of men, but the same attention was not afforded to those men who drank. Women were given the higher public profile as drunkenness was deemed unfeminine and represented an abuse of the female reproducing and nurturing body (see chapter 6).¹⁰⁰

Conclusions

This chapter has suggested that the construction and normalisation of identity is forged out of a number of different sources and through a number of different

⁹⁵ D. Dewar, *Licensing act for 1903*, LSD.

⁹⁶ *People's Journal*, 1 March 1888.

⁹⁷ Stewart, *Breaking the fetters*, 71.

⁹⁸ "Dundee's mill and factory operatives", *DYB* (for 1901) 204.

⁹⁹ *Dundee Advertiser*, 10 Oct 1905, letter from 'De Sparkyne Plugge'.

locations. From a disparate range of archive records, I have tracked the discourses through which working women in Dundee's mills and factories were made known and categorised. Deploying Foucault's notion of discourse with the work of urban historians enables us to identify recurring themes of dress, behaviour and deportment through which working women were defined. And I have shown how these themes extended to understandings of working women in relation to work, home and leisure. In this way, identities of production were reworked to become identities of consumption and display.

Although working women did not constitute a moral panic as such, Dundee's middle-class writing establishment did construct them as a particularly problematic population. David Sibley's work on exclusion is useful here in understanding these processes of construction:

The socio-spatial construction of certain groups as outsiders is a complex process but (I suggest) that the problem can best be understood by focusing on boundary processes, the ways in which distinctions are made between the pure and the defiled, the normal and the deviant, the same and the other.¹⁰¹

Various 'exposés' of the mill and factory workers and their social conditions focused on and accentuated the differences between those who were the guardians of 'mainstream' values and those working women who defied them. However, this process also focused on the differences amongst working women, constructing different and opposing groups of workers. It was the millworker and the married working woman who were 'othered' more than any other working groups in Dundee.

¹⁰⁰ However, there did exist a strong temperance movement led by James, and later, Edwin Scrymgeour in Dundee. It proved particularly popular amongst the millgirls for its organisation of recreational activities. See Walker, *Juteopolis*.

The diagnoses of workplace and urban types legitimated the creation of a landscape of reform, as simultaneously these organisations legitimated and perpetuated these 'types'. Nikolas Rose has suggested that it is outside the world of work that rationalized projects of civility proliferated.¹⁰² Through an array of local charitable organisations and local authority departments and figures, a new knowledge economy on the working woman began to take shape. Through a series of vignettes, the remaining chapters of this thesis explore this landscape of reform that began to converge upon the working woman, marking her out as an urban 'type' and particular 'problematic population' to be scrutinized.

However, beyond the period in question, these processes of 'typing' have been important in the understandings of working women in Dundee today.

In the closes, on the stairs, hanging out windows, jostling each other as they skailed from the jute mills and factories. Dundee women. Vociferous, sure and dominant. Qualities that were more than a match for the petty sneerings of society.¹⁰³

Dundee as a woman's town resonates loudly in histories of the city and these classifications of women and their various characteristics that were once deplored in women are now being re-appropriated and re-presented as traits to be celebrated, as something unique to the city. There has been a concerted attempt through local history writing to redress the negative connotations implied by this label. Ellie McDonald expresses with hesitation how: "[t]he common epithets of irresponsible, militant and uncontrollable were heaped upon the female workers

¹⁰¹ D. Sibley, "Outsiders in society and space", in Anderson and Gale, *Inventing places*, 107-122, 120

¹⁰² See chapters 6 and 7.

¹⁰³ E. McDonald, "Dundee women", in Kay, *The Dundee book*, 155-9, 155.

in the jute trade,"¹⁰⁴ and turning these derogatory images on their head, she suggests:

For Dundee women had come of age long before the world was ready to accept that women had the right to equality, and from outside Dundee and from within, society acted against the uncomfortable reality of women threatening the male power base. Finding itself in an unprecedented position and unable to construct a reasoned argument, society resorted to ridicule and contempt as a means of channeling its unconscious fears.¹⁰⁵

Hence, identities that were once constructed as and through technologies of control and classification, are being re-appropriated, as empowering, through the writings of local history.

However, this chapter has questioned the essentialist understandings through which these images were deployed. Instead, I suggest a history which deconstructs the masculinist discourses through which working women were problematised. This approach can be equally empowering in redressing the negatives images of Dundee's working women which have pervaded the city's history.

¹⁰⁴ *Ibid.*, 159.

¹⁰⁵ *Ibid.*

Chapter 6

Improving the House and Constructing the 'Home': Working

Women and the Dundee Social Union

In 1887, Professor T. Carnelley from UCD¹ and J. S. Haldane², made a study of the air in Dundee's overcrowded dwellings. Using a simple apparatus they had developed for counting germs, the experiment aimed to find "accurate data" on the levels of carbonic acid, organic matter, and micro-organisms in the air, and their link to the city's death rate.³ Samples of air were taken from the inside of schools and dwellings with the samples from dwellings taken during the night, between 12.30 am and 4.30 am, as this was the "most favourable time for avoiding disturbing conditions."⁴ As respected figures of the scientific community, Carnelley and Haldane were supported in their work by the city's Medical Officer of Health, A. M. Anderson. In addition, Thomas Kinnear, the head of the Sanitary Department, provided them with a horse and covered van, enabling samples to be immediately analysed following collection. As a precautionary measure, two inspectors belonging to the same department assisted "in the case of the poorer class of houses", as "[t]hose houses were visited without warning of any kind to the inhabitants, so as to

¹ Professor Carnelley was appointed the first professor of Chemistry in Dundee in 1882. However, by the time the DSU was formed in 1888 he had taken up a chair in Aberdeen, hence his absence from the DSU's committee.

² Haldane was also a scientist and described by his friend D'Arcy Thompson as "a great figure in the scientific world." See Thompson, *Fifty yeas and now*, 5.

³ A. M. Anderson, the city's MOH, made arrangements for the 1884 Registrar of Death to gain full particulars of the number of rooms and persons in the house in which death occurred, enabling a comparison of death-rate with composition of air in the various classes of housing.

avoid the risk of having the rooms specially ventilated in preparation for our visit.”⁵ As D’Arcy Thompson⁶, a fellow colleague at UCD reflected, “[n]ight after night, with a policeman to guide and to help them, Carnelley and Haldane went from house to house, filling tube after tube, and witnessing the unvarying spectacle of crowded poverty.”⁷ On a more personal note, he recalled that he went along with them a couple of times and saw things he would never forget.

This early piece of socio-scientific research from UCD found that carbonic acid, organic matter and micro-organisms all diminished in quantity as cubic space per person increased from 100 to 1,000 cubic feet. The research was published in the *Philosophical Transactions* of the Royal Society of London which voiced and to some extent practised, the ideal of experimental science as a public activity.⁸ This study by Carnelley, Haldane and Anderson triggered a move in the city towards the development and practical application of experimental knowledge.

With the ascendancy of germ theory at the turn of the twentieth century, the overcrowding of dwellings became an important social concern throughout Britain. According to various Acts of Parliament, overcrowding was defined as less than 400 cubic feet of air space to each person – a person being 10 years of age and upwards,

⁴ T. Carnelley, J. S. Haldane and A. M. Anderson, “The carbonic acid, organic matter, and micro-organisms in air, especially of dwellings and schools”, *Philosophical Transactions for the Royal Society of London*, Vol. 178 B (1887) 61-111, 69.

⁵ *Ibid.*, 69.

⁶ D’Arcy Thompson had been appointed to the chair of biology in 1885.

⁷ Thompson, *Fifty years and now*, 5.

⁸ Golinski, *Making natural knowledge*, 85.

and two children under 10 being counted as one person.⁹ In his endeavours to comply with this, and following the methods used by Carnelley, Haldane and Anderson, Thomas Kinnear instigated “night lodging house duty” with officers “going through” the houses in the more densely populated parts of the town “for the purpose of detecting and preventing overcrowding.”¹⁰ With the department making over 1,000 visits annually, Kinnear noted:

It is by night that the primary danger to health is caused by overcrowding, when every point of ventilation is closed and fresh air rigidly excluded, and it is during the night that we endeavour to stamp it out.¹¹

As germ theory made its way into mainstream medical and political discourse, reform of overcrowded dwellings took on greater urgency. The improvement of housing became a central tenet of sanitary reform. In 1919, Dundee’s Chief Sanitary Inspector noted that, “[i]t is an established fact that Housing is one of the basic problems, on the solution of which, that of almost every problem in connection with Public Health depends.”¹² The association of housing with health placed greater emphasis on individual behaviour rather than just the social and physical environment.

In contrast to this scientific research, the *DYB* for 1909 published an article entitled ‘Work Amongst Working Girls in Dundee’ which exclaimed, “I question if anywhere there is more done for the elevating and ameliorating of the lot of the

⁹ Chief Sanitary Inspector, *Annual report* (for 1911), Dundee.

¹⁰ *Ibid.*

¹¹ *Ibid.*

¹² Chief Sanitary Inspector, *Annual report* (for 1919), Dundee.

working girl than in our own city.”¹³ The article referred to the work of the Salvation Army Metropole and the Ladies’ Union, both of which provided ‘working girls’ with accommodation. In addition, it cited the work of the St Paul’s U.F. Mission, Blackcroft Mission, Curr Domestic Classes, and Girls’ Guildry, all of which offered evening classes in dressmaking, cooking, laundry and other similar domestic skills to over 2000 young women or ‘working girls’¹⁴ after working hours. With the high proportion of working women, particularly married working women, domestication, too, became a central tenet of the philanthropic movement in Dundee.

In this chapter, I want to explore the two very inter-related concerns that these two stories point to: how structural accounts of the house were coupled with conceptual understandings of home. I do this through a close examination of the work of the DSU, which aimed to:

improve the surroundings and lives of the poor in direct and indirect ways; one of the most tangible methods was thought to be the superintendence of their dwellings with a view to their repair and enlargement, and their cleanly and healthful condition.¹⁵

The specificities of the DSU’s philanthropic project of reform were constructed around the city’s industrial conditions and the figure of the working woman. Through its studies of housing and sanitation, and its programme of activities, the DSU acted as a technology of biopower aimed at creating a strong and healthy population for the city of Dundee. The DSU became an important institution in the production of knowledge about the city and its inhabitants, and it amassed a large

¹³ “Work amongst working girls in Dundee”, *DYB* (for 1909) 76.

¹⁴ These terms were used interchangeably.

¹⁵ DSU, *First annual report*, 1888.

and public archive of annual reports, publicity leaflets, photographs, lectures, presidential addresses and publications which in themselves produced a powerful discourse on the population, health, welfare and environment of Dundee.

The Dundee Social Union and the Philanthropic Project

The DSU was established in 1888 with three aims:

1. Improving the conditions of dwellings of the poor
2. Providing opportunities and cultivating a taste for healthy enjoyments
3. Any other means which the Union might determine to adopt.¹⁶

Founded under the auspices of UCD, the DSU was the initiative of a number of younger academics who had become concerned with the city's poverty. As Sir D'Arcy Thompson noted fifty years later in his presidential speech, "Of all those young professors who had just come to town, I doubt if there was not one who was not shocked and saddened by the poverty which Dundee openly displayed."¹⁷ At the inaugural meeting of the DSU on May 24th 1888, these young professionals elected committees and office holders, and established rules and regulations.¹⁸ Membership of the DSU was on payment of an annual subscription of not less than two shillings and sixpence¹⁹, and it was aimed specifically at the "wealthier and more leisured townfolk" of the city.²⁰

¹⁶ M. O. Valentine, *Dundee Social Union and Grey Lodge Settlement: A brief sketch of the inauguration and progress of a society for the betterment of social conditions in the City of Dundee*, (Dundee, n.d.) 3.

¹⁷ Thompson, *Fifty years and now*, 4.

¹⁸ DSU, *Report from inaugural meeting*, 24 May 1888.

¹⁹ DSU, *First annual report*, 1888.

²⁰ DSU, *Third annual report*, 1890. The DSU also invited these townfolk to inspect the reports from its various committees.

Adhering to its first objective, the DSU tentatively began its work through the purchase and management of four small 'slum' properties in which tenants had only to pay a restricted rent. From this, the DSU's work took form through a range of committees. The Housing Committee, which had a central place in the DSU's work, continued to keep a number of properties, the majority of tenants being mill and factory workers. A Sanitary Committee was appointed to investigate the wider housing conditions around the city, and an Arts and Recreation Committee was established to provide various entertainments for those living within the newly acquired buildings. This committee was also responsible for initiating a large programme of Club Work which had a membership comprised almost entirely from mill and factory workers. These early committees were joined by various others including a Restaurant Committee, Business Committee, Holiday Committee, Infant Welfare Committee, and Publicity Committee. Through this matrix of committees, an increasing geographical and topical area was brought under the philanthropic aegis of the DSU.

One of the points that I want to stress is that the DSU's project was inherently spatial. In 1936, for instance, it suggested that there was "not enough physical, economic or psychological space" in the environment into which a large proportion of the population was born,²¹ and it aimed at extending such spaces. At the same time, DSU projects not only tried to restrict the physical spaces into which Dundonians went, but also collapsed the population into a certain conceptual spaces.

By constructing some groups as in need of more care and attention than others, the DSU set up strict parameters for understanding spaces and identities.

From its early work with tenants, the DSU's programme of reform was premised upon establishing "friendship between class and class."²² Reflecting on its methods, Miss M. O. Valentine explained that, to those in "more fortunate circumstances",

it offers a chance of learning about the lives, outlook, and difficulties of the average industrial worker, boy, girl, or adult, and of realising something of their aspirations. It offers a chance of first-hand knowledge, as opposed to theory and possible prejudice; an opportunity of showing human interest and friendship and of breaking down misunderstanding and prejudices which ... do exist owing to segregation of the different grades of society in the city.²³

This referred primarily to middle-class women (of whom Mary Lily Walker was an example), who increasingly became charity workers in the nineteenth century. The focus of much research and intrigue, these women 'acceptably' extended the boundaries of women's public role and space by using their domestic knowledge and 'innate' qualities of compassion.²⁴ The DSU encouraged the building of strong personal relationships, be it by club leader, rent collector or voluntary housing inspector. And with intimate relationships established, the DSU believed it could contribute more effectively and accurately to a growing scientific and philanthropic archive of knowledge pertaining to Dundee.

²¹ E. Trist, E., and V. Trist, *A glance at Grey Lodge clubs: from the psychologists point of view* (Reprinted from the Forty-Eighth Annual Report of the Dundee Social Union and Grey Lodge Settlement, Dundee, 1936) n.p.

²² DSU, *Annual report*, 1929.

²³ M. O. Valentine, *The Dundee Social Union and Grey Lodge Settlement: what are they, what do they do, what are their aims and ideals?* (Dundee, 1932) 7.

²⁴ F. Prochaska, *Women and Philanthropy in Nineteenth-Century England* (Oxford: Clarendon Press, 1980).

A central aim of the DSU was to “help people to help themselves and not to be a mere charitable institution.”²⁵ Therefore, for those “less fortunate” it offered:

a chance of recreation, self-expression, and education; an opportunity to learn to think, and to consider questions from different points of view; a chance to take some responsibility, to develop leadership and to acquire an appreciation of *order, self-discipline, and discipline* in its best sense; a chance to work for the common good and not only for self.²⁶

As a technology of biopower, the DSU was working towards a ‘common good’ for both the ‘fortunate’ and ‘less-fortunate’. With order, discipline and self-discipline, those ‘less-fortunate’ Dundonians would come to learn the differences between responsible and irresponsible behaviour, and would eventually be able to regulate themselves beyond the DSU’s auspices, and thus ‘help themselves’. On the other hand, being a DSU worker would enable more wealthy Dundonians to participate in the production of knowledge and bear good influence on the poorer classes, from which they were spatially and socially segregated.

This project of reform has recently been understood by Baillie as the consequence of an “enterprising middle-class social reforming elite” within the city, who had “a highly developed sense of civic responsibility.”²⁷ Although Baillie’s study provides a welcome empirical break from the tendency to focus on the large English cities (particularly London),²⁸ it lacks insight into the conceptual dynamics of philanthropy

²⁵ DSU, *Annual report*, 1923.

²⁶ Valentine, *The Dundee Social Union and Grey Lodge Settlement: What are they*, 7 (italics added).

²⁷ M. Baillie, “The grey lady: Mary Lily Walker of Dundee” in Miskell et al., *Victorian Dundee*, 122.

²⁸ Historical research on the philanthropic movement has tended to rest with the work of leading (male) figures of urban exploration such as General Booth, Charles Booth, Charles Russell, and only a few women, particularly Octavia Hill in London.

and humanity.²⁹ Randall McGowan suggests that historians have asked questions such as: Where did the philanthropic movement come from? Whose interests did it serve? What class did the humanitarians represent? But what they often do not question, is the term 'humanity' itself.³⁰ McGowan turns to Foucault's thoughts on human agency, and their bearing on our understanding of Victorian philanthropy.³¹ Foucault questions the very essence of humanity. His conceptualisation of power instead suggests that projects of humanity and philanthropy fostered power relations aimed at the cultivation of the self. McGowan takes forward these Foucauldian concerns to explore how such projects formulated particular social problems and implemented procedures for dealing with the ever more various groups of people in the industrial city.³² I want to explore how the DSU constructed working women as a particular social problem, by examining the range of practices that produced subtle power relations.

²⁹ Kidd suggests that the study of the philanthropic movement has lacked both empirical range and theoretical rigour. A. Kidd, "Philanthropy and the 'social history paradigm'", *Social History*, 21 (1996) 180-214.

³⁰ This is suggested in the title of Valentine's reflection of the work of the DSU (see fn 23). R. McGowan, "Power and humanity, or Foucault's among the historians", in C. Jones, and R. Porter, *Reassessing Foucault: Power, Medicine and the Body* (London: Routledge, 1998) 91-112, 102-3.

³¹ In his fraught relationship with historians, it has been Foucault's anti-humanist beliefs which have been most sharply rebuked, as McGowan notes, "[w]hat particularly disturbs historians is that Foucault criticizes the efforts made over the last several centuries to improve the human situation." Foucault's writings on these efforts have been read by many as yet another form of domination with

The Place of Knowledge Production

UCD was founded in 1882 with money bequeathed by the Baxter family.³³ Designed to have a scientific rather than a literary character,³⁴ in his inaugural address, Professor Stuart of Cambridge stressed the importance of scientific teaching and treatment when he observed that, “[t]he material part of human life calls for scientific treatment, and is capable of it.”³⁵ ‘Applied science’ was therefore to form the basis of the University’s teaching and research.

It was out of this institutional environment and ‘conversational space’³⁶, that the DSU was formed in 1888, and as a history of the University recalls:

The early professors at Dundee were not of the ivory tower variety. These young men realised that to compete in the modern world Britain had to improve technologically and that however poor Dundee was, its people needed and wanted education previously out of reach for financial and social reasons and the desperate poverty and insanitary conditions had to be tackled directly and with their active help.³⁷

The DSU was founded by Professors Ewing³⁸, Geddes³⁹, and Steggall⁴⁰, who together sat on its first general committee. Although its day-to-day running was to be

seemingly no difference between projects that hurt and help humanity. McGowan, “Power and humanity”, 98.

³² *Ibid.*, 102.

³³ The Baxter family were textile magnates in the city owning Dens Works on Princes Street. Baxter Brothers were the largest linen manufacturers in Dundee from c.1840-1890.

³⁴ “University College, Dundee”, *DYB* (for 1883) 56.

³⁵ *Ibid.*, 71.

³⁶ Livingstone coins the term ‘conversational spaces’ in reference to the different ways in which texts are read and talked about. He suggests: “In getting a handle on the circulation of intellectual commerce, I suggest that space of conversation should attract geographical scrutiny... If we are to bring a geographical perspective to bear on the circulation of scientific knowledge, we will have to take seriously these spaces of conversation” 31-2. This is pertinent in understanding how the DSU formed within the confines of the UCD, amongst the academics from a range of different subjects. See D. Livingstone, *Science, space and hermeneutics*, (Department of Geography, University of Heidelberg, 2002) 31-2.

³⁷ M. Shafe, *University education in Dundee 1881-1981* (Dundee: University of Dundee, 1982) 19.

³⁸ In 1882, Professor James Ewing was Professor of Engineering and Drawing.

placed largely in the hands of women, the men who initiated the project were crucial to its early formation. As 'men of science' they embodied scientific attributes of progress, enlightenment and objectivity, which had a particular purchase on philanthropy as 'social reformers' across Britain were calling for what George Cadbury described as, a "*scientific method* by which we may attack what is called, more or less vaguely, the Social Problem."⁴¹ Philanthropy came to the fore at the juncture of various discourses that brought together different ways of speaking about 'scientific advance' and 'social progress'. Scientific knowledge, and processes of quantification, were given a privileged status in the problematising of populations, their environment, and health. By applying scientific techniques to charitable enterprise, the DSU was keeping up with the latest fashion in philanthropy.

These ideas, although recognized by various historians working on questions of philanthropy, have been given most impetus by those researching the social construction of knowledge. Golinski's work on the history of science is particularly pertinent here. His studies demonstrate how science, through its foundations, theories, and methods, and importantly its sites and spaces of inquiry, creates dominant and prevailing discourse.⁴² Earlier work by Cullen on the statistical movement in early Victorian Britain is also useful. He stresses how the dominance of mathematics led to the belief that everything could and should be measured. The

³⁹ In 1888, Patrick Geddes was appointed chair in Botany. The DSU was formed only six weeks after Geddes joined the University, and was largely modelled on the Edinburgh Social Union which he had formed in January 1885.

⁴⁰ In 1882, Professor John Steggall was appointed Chair of Mathematics and Natural Philosophy.

⁴¹ Cadbury et al., *Women's work and wages*, 11 (italics added).

⁴² Golinski, *Making natural knowledge*.

'reliability' of mathematics and statistics became key to the development of a 'science of society'.⁴³ Statistics were infinitely applicable; any aspect of life could be objectified through their use. By applying these ideas to the work of the DSU and philanthropy more widely, we are able to explore how the 'truths' and 'facts' that such projects produced were bound up with the uneven and unequal articulation of class and gender relations.

It was the *location* from which the DSU was founded that informed both the identities of its founders, and the techniques of their work. In his work, Foucault suggests that the truths produced through discourse are legitimated through their association with particular institutions and locations. As Barnes and Duncan explain:

The power of discourses derives not so much from the abstract ideas they represent as from their material basis in the institutions and practices that make up the micro-political realm which Foucault sees as the source of much power in society.⁴⁴

UCD can be seen as a 'space of dispersion' from which a local discourse took shape and could emanate.⁴⁵ In Dundee, the new university represented the intellectual elite of the city, an elite who in part were new to the city, and therefore could purportedly see more clearly the problems that existed. From the space of the university, a space of the mind and intellect, these academics constructed the city as a site to be examined and explored.⁴⁶

⁴³ Cullen, *The statistical movement in early Victorian Britain*.

⁴⁴ Barnes and Duncan, "Introduction, writing worlds", 9.

⁴⁵ See D. Livingstone, Science and religion: foreward to the historical geography of an encounter, *Journal of Historical Geography*, 20 (1994) 367-383.

Mary Lily Walker who, from the outset, was prominent in the day-to-day running of the DSU had also studied at the UCD. She had a “brilliant University career” and gained a great interest in scientific research.⁴⁷ As a student she developed what was to be a long-lasting friendship with D’Arcy Thompson, working in his zoology museum, keenly collecting and classifying samples.⁴⁸ These ‘scientific’ experiences and ways of working indirectly shaped the approach she took to her social work in the city. D’Arcy Thompson and Lily Walker were to remain close friends and in a biographical insight into her life, D’Arcy Thompson explains how, along the lines of Octavia Hill and Charles Booth, Walker’s main business “was not to give relief but to gain knowledge,”⁴⁹ or, in the words of another reformer, George Cadbury, she provided Dundee with a “clear and systemised knowledge of ‘What is’.”⁵⁰

Improving the House

It must be borne in mind, however, that a large proportion of the working class population in Dundee must live near the mills and factories. They cannot afford the time involved in going three times a day to and from their work.⁵¹

This quote from the DSU’s *Report on the housing and industrial conditions of the city* suggests that housing problems in Dundee were compounded by the necessity to live near mills and factories. “The tall, grim, blackened tenement blocks”, as Smout

⁴⁶ It is probable that the founding the DSU also legitimised their own place and that of the new university within the city.

⁴⁷ Every year between 1884-88 Mary Lily Walker won first prize in subjects ranging from Latin, history and literature to botany, zoology and physiology. See Bailie, “The grey lady”, 124.

⁴⁸ This is demonstrated through the correspondence and papers of Sir D’Arcy Wentworth Thompson, StAUA.

⁴⁹ Thompson, *Fifty years ago and now*, 10.

⁵⁰ Cadbury, *Womens’ work and wages*, 11.

⁵¹ DSU, *Report on the housing and industrial conditions*, x.

refers to them, became the home to the working classes.⁵² From the study carried out by Carnelley, Haldane and Anderson, overcrowding and its detrimental effects on health were placed on the agenda of many projects of reform. One of the main aims of the DSU was therefore to carry out further studies of, and seek remedial strategies for, overcrowding.

Housing Experiments

In its inaugural meeting, the DSU established its 'Housing Department' to manage a number of properties in the city. Two Superintendents, Miss Gourley and Miss Hill, were appointed for the day-to-day management of the properties, and an Executive Committee was established to help "in directing the collection of rents, the keeping of accounts, the carrying out of repairs, the letting of houses, the eviction of defaulting tenants, and all other parts of their work". In addition, the executive committee was to,

appoint Rent Collectors, and remove them at discretion, arrange with proprietors the terms on which the management of properties will be undertaken; inspect properties which it is proposed to hand over to the management of the Union; advise intending purchasers as to necessary or desirable repairs, and undertake the charge of such repairs on behalf of the proprietors; draw up Rules for the direction of Rent Collectors and Tenants which shall be binding unless and until revised by the General Committee; and generally take such action as may be necessary for the management of the housing work of the Union.⁵³

Through this committee, the DSU tentatively began its work by offering to act as factor for a number of properties, and encouraging people to purchase dwellings and put them under the DSU's management.

⁵² T. C. Smout, *A century of the Scottish people 1830-1950* (London: Fontana Press, 1986) 33.

⁵³ DSU, *Report from inaugural meeting*, 24 May 1888.

The DSU began with three tenements along Bell Street, Watson's Lane, and Union Street in Maxwelltown, housing a total of 39 families.⁵⁴ These properties provided the academics with what they called an "insight into the housing and house-keeping of the poor."⁵⁵ The DSU viewed these houses as an experimental space - as an enlarged laboratory - within which the poor could be observed, and the 'truths' of their living conditions discerned and carefully recorded. In its second annual report, the executive committee informed the DSU that "[t]he tenants appear to have much valued the efforts of the Union; and have, with very trifling exceptions, tried to keep their houses in better order; and in general to preserve the property entrusted the Union."⁵⁶ The DSU endeavours were finding favour with those it sought to 'help', with real improvements noted. From the original three properties, the DSU slowly acquired more, with the number of families under its management increasing from 39 in 1888 to 102 in 1895.

This project of management followed a particular format. Each building was allocated a Rent Collector and Superintendent to ensure that rules were enforced. As the ninth annual report of the DSU described this work:

Once-a-week at a fixed time, each lady, armed with rent book and pencil, goes round her district. The people are delighted to have a little talk and some have a very great deal to say. Thereafter she proceeds to the Hall or office where she adds up her book, hands over the cash to Superintendent or deputy, reports any non-payments of rents, discusses repairs and general matters.⁵⁷

⁵⁴ DSU, *First annual report*, 1888.

⁵⁵ Thompson, *Fifty years ago and now*, 5.

⁵⁶ DSU, *Second annual report*, 1889.

⁵⁷ DSU, *Ninth annual report*, 1896.

In addition, the DSU had a system of positive and negative checks to ensure that tenants behaved appropriately. Bonuses were given to weekly tenants who paid their rents during the quarter with perfect regularity. However, as the problem of getting tenants to do their fair share of the cleaning of common stairs and passages grew, so the condition of the bonus included the tenant having done his or her fair share of the necessary cleaning. However, negative checks were also exercised. As plate 18 shows, strict conditions had to be adhered to by DSU tenants - conditions for both the upkeep of the buildings and the behaviour of the individual tenants. As Rule 10 stipulates, the DSU imposed a code of conduct, with 'drunk or disorderly' behaviour not permitted. Anyone failing to comply with these rules faced disciplinary procedures. The Third Annual Report commented:

The Committee has recently felt justified in removing one or two tenants for reasons other than non-payment of rent. It is believed that this action will have, as a clear indication that the Committee will not tolerate dirt, disorder, or offensive behaviour, a very wholesome effect on their numerous tenants.⁵⁸

Only a certain type of tenant was allowed into DSU properties, and through its rules and observations it used its powers to eject those it believed unsuitable.

The DSU's housing management practices rested upon the regular observation of tenants and tenements. This is exemplified when, in 1901, the DSU acquired a property in Step Row. The existing residents were yearly tenants with rent being collected once every 6 months. However, one of the first changes the DSU made was to make them weekly tenants, as "the weekly collection of rents brings the collectors

⁵⁸ DSU, *Third annual report*, 1890.

RULES FOR TENANTS.

1. All tenants, before taking possession, must pay a sum equal to four weeks' rent as a deposit, to be held as security for any damage to the property or other loss or expense caused by the tenant. A charge is made for w.c. key, which must not be lent to persons not living in the property.

2. The rent must be paid weekly on the day fixed by the Collector.

3. There will be a charge of 1d a week additional rent from September 1st to March 31st in respect of gas in courts and stairs.

4. Common stairs and passages must be swept daily and washed once a week; and closets must be flushed daily and scrubbed once a week by the tenants in turn, as arranged by the Collector.

5. Chimneys to be swept twice a year.

6. House and sink to be kept clean. No washing must be hung out on Sunday.

7. Broken windows must be repaired by tenant. When broken from outside half the cost will be allowed.

8. Lodgers are not allowed without written permission.

9. One week's notice of removal to be given on each side.

10. If any tenant damages or misuses the rooms or fittings, or is drunk or disorderly, or causes discomfort to neighbours, or breaks any of these rules, and *fails to pay rent regularly* when called for, he shall, after one week's notice to quit, be subject to immediate ejection from his house.

11. Tenants must, in turn, for a week at a time, light and put out stair gas. The gas must be put out—

10 P.M. on week nights.

11 P.M. on Saturdays.

9 P.M. on Sundays.

If this is not observed, an extra charge will be made.

Plate 18: Rules for tenants

Source: DSU, *First annual report*, 1888.

into much closer relations with the tenants.”⁵⁹ More regular visits meant more regular observation and closer scrutiny.

Mary Lily Walker was appointed as the Superintendent for Housing in 1891, and as a past student of Octavia Hill, she ensured that the style of housing management in Dundee closely mirrored that in London. Rent collectors, all of whom were women would, each Saturday, go round the properties and collect rents. Yet, as tenants were, with few exceptions, mill and factory workers, rent collecting was no easy task, as Walker herself explained:

We are baffled at every turn by the fact that the mothers, who should be in their homes taking care of their children, are all busy at the loom. No outsider can know all this horrible system means; we know a little, but we are helpless, and wait.⁶⁰

Due to the large numbers of women working in the mills and factories, rent collecting had to accommodate working hours: “We have tried collecting on Monday but it was not satisfactory, so many of the houses were shut and the payments were less regular.”⁶¹ And in comparison to other cities where the collectors could have pleasant quiet chats with the mothers, the DSU commented that this was impossible in Dundee because of economic conditions:

The most ardent enthusiast would find it discouraging to discourse on ventilation, on a Saturday afternoon with Tommy scrubbing his face at the sink, Jeanie blacking the grate, the harassed mother with baby wrapped in her shawl, evidently eager to get off to her shopping, and the father of the family, the only one who can take life easily, reading his paper, or perhaps stretched on the bed.⁶²

⁵⁹ DSU, *Thirteenth annual report*, 1901.

⁶⁰ DSU, *Ninth annual report*, 1896.

⁶¹ DSU, *Tenth annual report*, 1897.

⁶² DSU, *Tenth annual report*, 1897, report written by Mary Lily Walker.

This passage conjures up the image of a particularly 'noisy surveillance', a term coined by Jennifer Robinson in her study of housing management in South Africa.⁶³ The DSU's project of house inspection and rent collecting was, as the rules and procedures suggest, a means of surveillance. However, this surveillance was forged through a particularly embodied relationship that focused on the interaction between collector and tenant. This is what Robinson means by noisy surveillance: the creation of supervision and control through interaction, conversation and the development of relationships between supervisors and supervisees. Walking through the tenement blocks, knocking on doors and going into individual family dwellings, rent collectors and superintendents exercised a form of surveillance that was based on cordial relationships with tenants. Despite the difficulties that the DSU faced, it stressed the importance of these women visitors, commenting on their "personal interest and wise sympathy"⁶⁴ and the "friendship that can spring up between us and our hard-worked sisters."⁶⁵ Beyond the work of the rent collectors, these friendships were to be a cornerstone of the DSU's project of reform.

Investigative reports

In an effort to make their influence felt beyond the tenements and tenants they managed, in its second year, the DSU undertook a study of the city as a whole. A Sanitary Committee was formed which "resolved to begin work by selecting for

⁶³ J. Robinson, "Power as friendship: spatiality, femininity and 'noisy' surveillance", in Sharp et al., *Entanglements of power*, 67-92.

⁶⁴ DSU, *Sixth annual report*, 1893. The annual report noted that Mary Lily Walker had visited London and worked under Octavia Hill for some months, and keenly emphasised how similar the work of the DSU was with that of Octavia's in London.

⁶⁵ DSU, *Ninth annual report*, 1896.

visitation a number of small districts in the City in which the buildings for the most part are tenement houses inhabited by weekly tenants of the poorer class."⁶⁶ The DSU members, or 'visitors' as they were called, who were involved in this investigation, went from house to house with a printed form containing a schedule of questions which was filled out for each tenement.

Table 7: List of questions asked by DSU 'visitors'.

1. Is there provision for lighting stairs and passages?
2. Are they lighted regularly?
3. When were they last white-washed or painted?
4. Are they washed weekly by the tenants?
5. Are the houses cleaned and white-washed yearly?
6. What provision of water?
7. What provision of W.C. or Privy, and in what state?
8. Is there an ashpit? What is its state? How often is it cleaned out and flushed?
9. Is the court kept clean?
10. General condition of drains and rain-water conductors.

Source: DSU, *Second annual report*, 1889.

From the visitation of 129 properties, covering 1500 separate dwellings, the DSU concluded that many tenants were suffering from structural curtailments of the Dundee Police Act of 1882, especially with regard to the lighting of common stairs, the provision of sanitary accommodation and the regular white-washing of walls. These findings were then taken by members of the Sanitary Committee to the Police Commission, urging them to take action. In addition, the DSU invited the co-operation of other bodies who were already working among the poor, including the city's clergy, missionaries, bible-women, and district visitors. Subsequently, it was decided between the DSU and the city's clergy that the city be "mapped out for the

⁶⁶ DSU, *Second annual report*, 1889.

purposes of visitation into six principal districts.”⁶⁷ As with the tenants in their managed properties, the DSU greatly favoured systematic and regular visits to the homes of the poor.

This investigative enterprise was extended in 1905 with the DSU’s report into the housing and industrial conditions of the city, which sought “to establish, by direct and careful examination, under what conditions the life of not an inconsiderable portion of the community is carried out.”⁶⁸ Thirty-three years later, D’Arcy Thompson recalled that the report had been “a great piece of Statistics”:

[I]t reduced to figures the lives of people; it told of unemployment and its vicissitudes, of wages and expenditure and of diet, of overcrowding, of the lack of sanitation and the consequences thereof. It measured and weighed the children and compared their meagre bodies with the well-to-do; it gave long tables of mortality and disease.⁶⁹

The DSU recognised the need for what it called “reliable data” on what was going on in the city, and crucially, inside people’s homes, and the report was the means of getting such information.⁷⁰

Acting on the advice of Charles Booth in London⁷¹ and Seebowm Rowntree in York⁷², “it was agreed that the detailed work of the enquiry should be put into experienced hands, and that what may be called amateur assistance should not be employed.”⁷³ These “experienced hands” belonged to Miss Mary Lily Walker and

⁶⁷ *Ibid.*

⁶⁸ DSU, *Report on the housing and industrial conditions*, v.

⁶⁹ Thompson, *Fifty years ago and now*, 10.

⁷⁰ DSU, *Report on the housing and industrial conditions*, v.

⁷¹ C. Booth, *Life and labour of the people in London*, (London, 1902).

⁷² B. S. Rowntree, *Poverty: a study of town life*, (London, 1901).

⁷³ DSU, *Report on the housing and industrial conditions*, vi-vii.

Miss Mona Wilson and a “staff of trained assistants aided in the work” with five of the city’s doctors undertaking special investigations. The report’s preface notes how no less than 54.6 per cent of the female population of the city above fifteen years of age were occupied in earning a living and that “[t]his characteristic necessarily settled some of the main lines of the enquiry.” It continued, “it will be discovered from a perusal of the Report that a prominent place is given to female labour, its wage-earning power, and its relation to the rearing and mortality of children.”⁷⁴ Despite the ambitions of the report, the DSU was careful to note that it did not provide a picture of the whole social life of the people, but “only certain selected features.”⁷⁵ Concerned with a too negative portrayal of the city, the DSU cautioned against such misrepresentation of its scope and findings.

The report began with a chapter on Housing Conditions. Setting the premise of the investigation, it outlined Dundee’s housing problem with statistics given in the 1901 census, as table 8 demonstrates. Dundee, with 88.4 per cent of its population housed in accommodation of 3 rooms and under exceeded Edinburgh and Aberdeen and was on a par with Glasgow. With these census statistics, “it became necessary to consider the best way of filling in the outline, and ascertaining the conditions under which the poorer inhabitants were living.”⁷⁶

⁷⁴ *Ibid.*, vi.

⁷⁵ *Ibid.*, vii.

Table 8: Number of families living in different sized accommodation.

	1 Room	2 Rooms	3 Rooms	4 Rooms and over	TOTAL
EDINBURGH	12114	22487	13784	23089	71504
Percentage to total no. families	16.9	31.5	19.2	32.4	100
ABERDEEN	4484	12799	8990	8024	34297
Percentage to total no. families	13	37.4	26.2	23.4	100
GLASGOW	42623	71207	27017	22411	163258
Percentage to total no. families	26.1	43.7	16.5	13.7	100
DUNDEE	7371	19503	6177	4352	37403
Percentage to total no. families	19.7	52.2	16.5	11.6	100

Source: 1901 census, in DSU, *Report on the housing and industrial conditions of the city* (Dundee, 1905) 3.

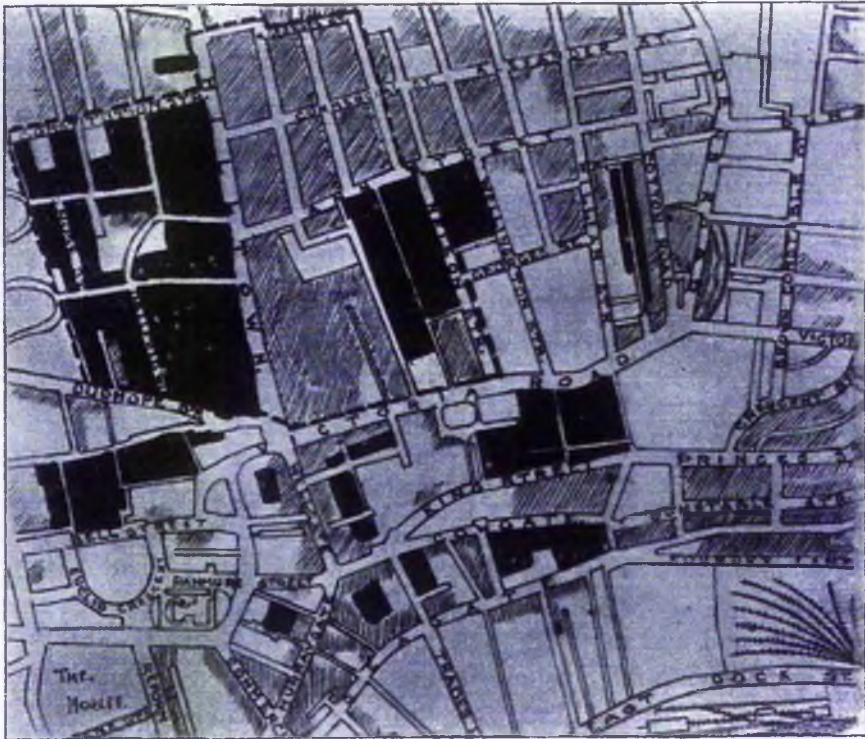
It was with this aim foremost in mind that the DSU forged its second major housing investigation. This investigation began by spatially demarcating the city. Two “typical” districts - “the conditions of which should fairly represent those prevalent in the parts of Dundee mainly inhabited by the labouring and less well-to-do artisan classes”⁷⁷ - were selected for visitation and circumscribed as East and West (see plate 19).⁷⁸ Road by road, street by street and house by house, the areas were mapped, population densities marked, and detailed descriptions created. This type of

⁷⁶ *Ibid.*, 4.

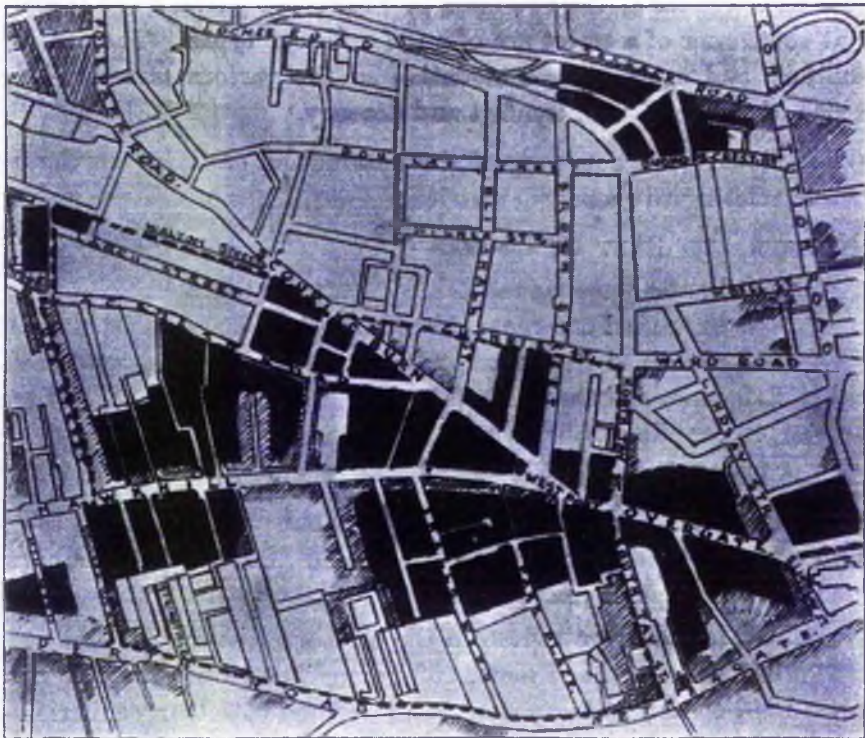
⁷⁷ *Ibid.*, 4.

⁷⁸ The report described the two areas chosen as follows: The western district is a rectangle lying south of an area occupied by foundaries, mills and warehouses, and north of the Perth Road. Its eastern boundary is Tay street, a broad street leading to Lochee; its western, Ure Street and Cherryfield Lane; its northern, Walton street, Scouringburn, and Guthrie Street. The eastern district consists of the lower half of Hilltown and the adjoining streets. Its forms a square bounded on the south side by Dudhope Street and Victoria Road; on the east side by Nelson Street and Union Street; on the north side by Constitution Street and North George Street; and on the west by Hedge Row. See *Ibid.*, 8-9.

EAST DISTRICT.



WEST DISTRICT.



*Plate 19: Areas investigated by the DSU.
Source: DSU, Report on the housing and industrial conditions of the city of Dundee (Dundee, 1905) 11*

classification enabled the DSU's own type of order to be imposed upon the city and its inhabitants – an order that laid out all of their problems for easy viewing and commentary. Walker and Wilson did not enter all of the houses in the areas demarcated, and in deciding on which houses to enter, the report remarked, “[t]he important fact to ascertain beforehand was the social status of the tenants, and of this it was only possible to get a rough estimate from the Valuation Roll. The Lady Inspectors were instructed to withdraw at once if any resentment was felt at their questions, but they encountered difficulties in very few instances.” 5888 houses were selected and information “relating to the number of rooms, number of occupants, the nature of the sanitary accommodation and the provision of water taps and wash houses” was collected. As plate 20 shows, each result was positioned by road and district, and was scrupulously catalogued for the purposes of comparison. Family occupations and the total numbers living and dead, were also noted.⁷⁹ These questions brought together various hygienic requirements of space, light and ventilation - ideas of the necessary free circulation of air, light and people that accorded to the DSU's scientific vision of health and reform. With rooms measured and people counted, population densities could be measured.⁸⁰

The report described families living in four different blocks of dwellings, “in order to give some idea of the classes of workers visited by the lady inspectors.” The occupations of inhabitants were central to these descriptions, and as Figure 3 suggests, such descriptions were embellished with observations on the level of

⁷⁹ *Ibid.*, 10.

Figure 3: Examples of the four classes of block dwellings.

Block A

No.2 is occupied by a labourer, a woman, who is a millworker, and their five children, all illegitimate. The eldest boy (6) sews sacks, and as father and mother were both out of work, all were busily sewing sacks. They said they could manage two or three bundles a day. The room was very dirty, and all looked very wretched. The mother is nursing the baby, three weeks old. Rent, 1s 9d.

No.9 is occupied by a millworker, his wife - a spinner - and the baby. The two parents earn 21s. 4d. between them, pay 1s. 9d. for their room and 3s. to their neighbour for keeping the baby. This room is dirty.

Block B

No. 2 is occupied by an unemployed calender worker, his wife - a spinner - and two young children. The woman is nursing the baby, a fortnight old, but is anxious now to go to work if she can get a neighbour to take the children,. The rent of this house is 2s. 6d. weekly.

No. 4 is occupied by a very respectable family. The father earns 23s. steadily at an iron store; his wife does not go out to work. One boy of 14 has just won a bursary at a secondary school; during the holidays he earns 4s. a week as a message boy. Two younger children are at school. The rent is £6.8s. yearly.

Block C

No. 2 is occupied by a single woman living with her three sisters and one brother, and the illegitimate child of one sister. All are millworkers. The baby's mother has not worked for two months, but receives 2s. 6d. a week from the father. One sister earns 11s. 6., and the brother 14s. They pay 3s. 3d. for their two rooms.

Block D

No.7 is a two-roomed house, £8 rental; size, 12ft. x 7ft. x 8ft. and 12ft. x 12ft. x 8ft.; occupied by a family of nine persons. The father works at a trade, earning 25s weekly. The mother has not worked since marriage. The eldest of the seven children is ten years, the youngest two months. The house is clean.

Source: DSU, *Report on the housing and industrial conditions of Dundee* (Dundee, 1905) 17-23.

tidiness of the home, the physical appearance of the residents, the respectability of the family, and whether the residents formed part of the traditional family - marriage and legitimate children. With house-keeping and dietary habits also scrutinized, the report moved beyond a study of housing and bricks and mortar, to posit middle-class notions of the 'home' and homelife.

According to Morrison, this investigation formed "a document of the first importance in the social history of Dundee." She continued:

The information that it contains is factual, the figures are carefully presented and compared, and even the descriptions of the households visited by four women sanitary inspectors are plain records of things seen and carry a minimum opinion.⁸¹

However, despite the report's rhetoric of scientific objectivity, and its perceived status as an accurate and exhaustive record of social life in Dundee, Mary-Lily Walker complained about being understaffed:

This means that last month Miss Wilson and I have been wrestling through calculations etc when we ought to have been quite free for the writing. Our directives are no opinion only a bare statement of fact - & give numbers.

.....

It seems to me that the most we can hope under these conditions is to present results in a form that cannot be discredited - no serious slip has been detected in part I. Here after we may write for ourselves!⁸²

Despite Morrison's treatment of the report as a purely factual, thorough and accurate piece of research, Walker hints at the conditions in which the report was written and the very real embodied and material circumstances in which it was produced.

⁸⁰ The report noted however that problems of concealment were found in a number of buildings visited. *Ibid.*, ix.

⁸¹ R. Morrison, "Poverty, distress, and social agencies" in Jackson, *The city of Dundee*, 601-631, 611.

Slum Housing and Bodies

The DSU's project of housing improvement worked through a particular socio-spatial imagery. The word 'slum' recurs throughout the report, and is used as an umbrella term to describe whole areas of housing. In the late nineteenth century, the 'slums' became a preoccupation for a whole array of experts in the growing public arena, including charity workers, sanitarians, housing reformers, urban planners and the press.⁸³ As the DSU's housing report had highlighted, Dundee did suffer from severe problems of housing stock and overcrowding. What I want to emphasise here, however, is that the term 'slums' involved more than a structural appraisal of housing. The 'slums' were simultaneously a product, composed by a range of words, concepts and images to which the report contributed. Words such as 'airless', 'congested', 'cheerlessness', 'disorder', and 'extreme discomfort' were regularly used to describe houses and subsume them under this one heading of slums. The DSU also used the analogy of confinement to describe slum residents, exclaiming that, "it is to be feared that the inmates will welcome any means of escape."⁸⁴ These and other emotive phrases played on the senses in other ways. For example, the report noted that "the stench in congested centres is described by all of the Inspectors as sometimes appalling."⁸⁵ The DSU used words, images and analogies that simultaneously invoked concern and disgust in its readers.

⁸² *D'Arcy Thompson*, Letter from Mary Lily Walker to D'Arcy Thompson, n.d., MS 14722, StAUA.

⁸³ According to Rose, the word slum was coined in London in the 1880s. See G. Rose, "Engendering the slum: photography in East London in the 1930s", *Gender, Place and Culture*, 4 (1997) 277-300, 280.

⁸⁴ *DSU, Report on the housing and industrial conditions*, xv.

⁸⁵ *Ibid.*, xi.

These descriptive devices were also represented through the medium of photography.

In a critique of 'documentary' photography, Price points out how:

We speak of *taking* photographs rather than *making* them, because the marks of their construction are not immediately visible they have the appearance of having come about as a function of the world itself rather than as carefully fabricated cultural objects.⁸⁶

The DSU used photographs as truthful evidence of bodies and spaces in need of reform.⁸⁷ Following Price, I want to reflect on both the *making* of such photographs, and, in addition, the processes of their consumption.

Photographs of the slums normally depicted more than just bricks and mortar. For slums to exist, slum bodies also had to exist. As Gillian Rose pointed out, these photos, normally of women and children depict dead-end streets with figures passively enclosed by walls⁸⁸, signifying their strict spatial confinement with no available escape. The photos served to emphasise the analogy of confinement and the idea that residents were inmates, pressing the urgency of reform. This spatial confinement was imposed by reformers, by the detached and disembodied figure of the photographer. Photography was a means of locating the working class 'other' and rendering 'it' visible. Thomas highlights the role of the autonomous photographer with a remarkably apt insight:

They entered the back streets, it appears, in the same spirit as expeditionary cameramen journeying in strange lands, for one of the commonest documentary photographs of the century shows a line of backstreet dwellers, generally women and children, with perhaps a man lurking in the rear, who are ranged across the middle of the composition, gazing expectantly into the

⁸⁶ D. Price, "Surveyors and surveyed: photography out and about", in L. Wells (ed.), *Photography: a critical introduction* (London: Routledge, 1997 (second ed.)) 65-116, 102-6.

⁸⁷ Tagg, *The burden of representation*.

⁸⁸ Rose, "Engendering the slum".

camera. From ... every great city comes this photograph; it always seems worth looking at because of the candid directness with which the subjects give themselves to the camera - like those foreign aboriginals photographed for the first time by the expeditionary photographers.⁸⁹

This process can be found at work in the photographs used by the DSU. In 1928, Dundee was confirmed as an under-housed and over-crowded city in the Sanitary Officer's Annual Report on the Housing of the Working Classes. In its drive to get support for its various slum clearance programmes, it re-produced four photographs (plates 21 and 22) which, it stated, represented the "actual housing conditions under which sections of our community live and rear their young."⁹⁰ And the Report continued:

They will carry home to the sceptical or doubting more forcibly than any pen can record that the wait for better housing is an honest one, and show to the 'man in the street' who has never peered behind the scenes, simply sees the buildings and their appearance from the streets, how certain sections of our citizens exist - the home and environment, certainly not over alluring.⁹¹

The report urged the public to look beyond the "window dressing" at the front of houses and "search to find out the truth" which, it believed, could be done by going behind these houses and seeing, as the photographs depicted, reality.

The four photographs came from two volumes of slum pictures taken for the chief sanitary inspector in the 1920s⁹² and would have been carefully chosen to most forcefully carry the report's message. After they had been published in the annual report for 1928, the following year's report remarked on the fact that they had been

⁸⁹ A. Thomas, *The expanding eye: photography and the nineteenth century mind* (London: Croom Helm, 1978) 136.

⁹⁰ *Annual report on housing of the working classes* (Dundee, 1928).

⁹¹ *Ibid.*

⁹² These two volumes are held in the DCA.

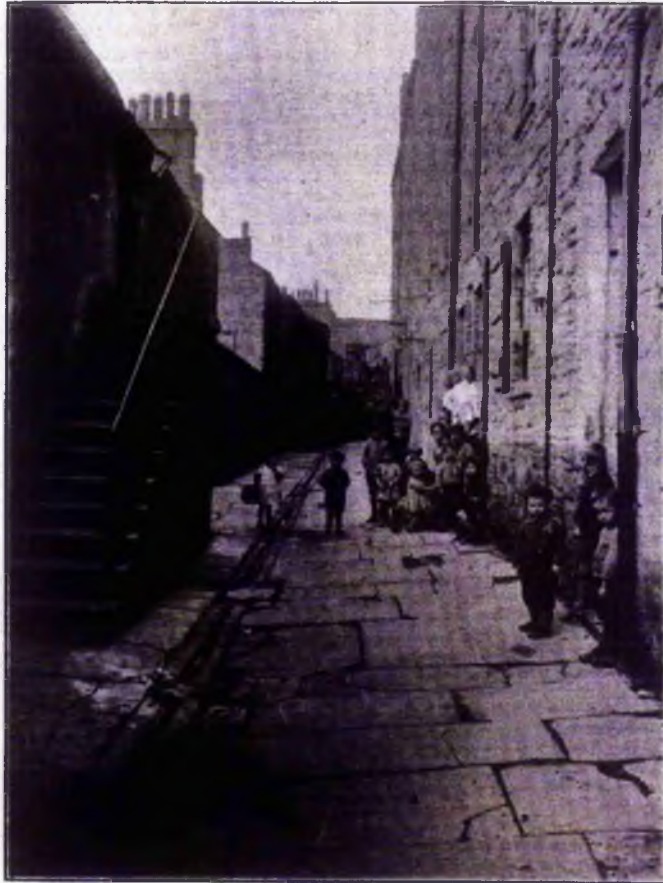


Plate 21: Photographs of slum housing - 'Todburn Lane, East End' and 'Paradise Lane, North East Corner'.

Source: From 2 volumes of photographs, Sanitary Department, August 1928, DCA. Reproduced in *Sanitary Department Annual Report for 1928*.



Plate 22: Photographs of slum housing - 'Deerhorn Close, 30 Hilltown, North Side' and '121 Cowgate, Robertson's Close'.

Source: From 2 volumes of photographs, Sanitary Department, August 1928, DCA. Reproduced in *Sanitary Department Annual Report* for 1928.

reproduced in newspapers and periodicals. One such 'periodical' was the DSU's annual report. The 1929 annual report had one of the photographs on the front cover (see plate 23). The photo chosen depicted the dead-end street and high walls that Rose discusses, with figures, mainly women and children, and a token man, as Thomas could pre-empt. The purpose of the photograph was to depict the association between slum housing and slum bodies – bodies that needed reforming just as much as the housing did.

Photography became central to documenting and understanding the city's working class residents and their housing conditions. The two volumes of photographs created by the chief sanitary inspector were used by contemporary institutions such as the Sanitary Department and the DSU to provide an imaginative geography of the city that enframed working class residents in insidious ways. Setting the slums up as objects of display, they simultaneously became sites of both fear and intrigue. By circulating such images, the DSU raised awareness of its objectives among the middle class, and generated fear in the minds of its subscribers. The photographs also created a certain amount of intrigue, they warranted further study on the slums and slum dwellers. Labelling certain housing types as slums and their residents as slum dwellers, the DSU's project of improvement had first to picture the working classes in the most miserable terms, and photography was a most effective way of achieving this, and thus of showing why reform was so necessary.

MS copy

DUNDEE SOCIAL UNION AND GREY LODGE SETTLEMENT



FORTY - SECOND ANNUAL REPORT YEAR ENDED 31st DECEMBER, 1929

*Plate 23: Front cover of the DSU's Annual Report for 1929.
Source: DSU, Forty Second Annual Report for 1929.*

Constructing the Home

In 1905, Mr Geil, a travelling missionary, gave a lecture at the Kinnaird Hall entitled 'In Darkest Dundee'.⁹³ His reminiscents of the city included his discovery of a 'drunken lad' and on a visit to his home caused him to remark: "His parents, perchance, lived in a house, but not a home."⁹⁴ This neatly captures the theme of this section: the social understandings of, and meanings given to, the term 'home'. Feminist geographers have reclaimed and re-examined the home as an important site of study⁹⁵, and as McDowell acknowledges, the term 'the home' must be one of the most loaded words in the English language.⁹⁶ In her critique of a number of male theorists, she exposes the multiple meanings which have been attached to the account of 'home', meanings that take 'home' beyond any physical structure, posit it within a set of ideals, and place it within particular understandings of gender. I will now explore these feminist understandings with reference to the strategies used by the DSU to both construct and negotiate meanings of 'home'.

Grey Lodge

The aims and particularly strategies of the DSU took an important turn in 1896 when Mary Lily Walker bought a Victorian villa at 9 Wellington Terrace, Dundee. She named it Grey Lodge, after her time in Blackheath, south London, at the Grey Ladies

⁹³ General William Booth, founder of the Salvation Army commented "As there is a darkest Africa is there not also a darkest England?". W. Booth, *In darkest England and the way out* (London, 1890) 11. Booth's work and reference to light and dark are discussed in F. Driver, *Geography militant: cultures of exploration and empire* (Oxford: Blackwell, 2001) chapter 8.

⁹⁴ *Dundee Advertiser*, 5 October 1905.

⁹⁵ M. Domosh, "Geography and gender: home, again?" *Progress in Human Geography* 22 (1998) 276-282.

⁹⁶ L. McDowell, *Gender, identity and place: understanding feminist geographies* (Cambridge: Polity Press, 1999) 71.

religious settlement house. Walker turned Grey Lodge into Dundee's first and most prominent settlement home, and although funded by and closely affiliated to the DSU, she retained control over all its affairs until her death in 1913.⁹⁷

From 1896 onwards, an increasing number of the DSU's initiatives emanated from Grey Lodge, and after 1918 it gave up its own hall and made Grey Lodge its administrative hub.⁹⁸ Grey Lodge came to epitomise the work of social improvement and its imagery was used in most of the DSU's publicity literature. For example, a publicity leaflet from the 1920s (see plate 24), depicts the role the DSU prescribed for itself. The sketch of the city shows an out-of-proportion Grey Lodge placed at the centre of the city. Its use of colour suggests that the city was caught between opposing forces of light and dark.⁹⁹ Along the lines of General Booth's work in London,¹⁰⁰ the leaflet produced the image of 'darkest Dundee' with the DSU casting light over the city. The DSU imagined and represented itself as a source of light and 'sunshine' to which Dundee's people should be attracted, either as recipients of its work or as contributors to its programme of reform.

The leaflet provides an important visual representation of both the city and the work of Grey Lodge. Providing what it called a "sunny spot" in the "drabness" of the lives of the working class, its 'enlightened' sketches showed how its aims were put into practice. In this way, the DSU, through its array of clubs, classes, holiday homes and

⁹⁷ Baillie, "The grey lady", 127.

⁹⁸ Morrison, "Poverty, distress and social agencies".

⁹⁹ The Victorian church seized enthusiastically upon this biblical language of light and darkness. See Nead, *Victorian Babylon*.

**DUNDEE SOCIAL UNION
and GREY LODGE SETTLEMENT**

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ALEXANDER MACKAY

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Dundee



For further information and copies of ANNUAL REPORT
please apply to THE WARDEN, Miss Cautherley,
Grey Lodge Settlement
9 Wellington Street
DUNDEE

Bonnie Dundee

? Yes-but . .



GREY LODGE SETTLEMENT

GD/OC/GL 4/6/5.

DUNDEE SOCIAL UNION and GREY LODGE SETTLEMENT
9 Wellington Street, Dundee

Dundee

is not so bonnie as it might be, while depressed by poverty and lack of work.

Grey Lodge Settlement

does, however, brighten the outlook of many men, women, boys and girls, and is a sunny spot in the drabness of their lives.

Activities

CLUBS, for indoor and outdoor recreation, give relief from overcrowded homes.

CLASSES in handicraft, educational and domestic subjects, physical training, etc., provide useful occupation for unemployed time and leisure hours.

HOLIDAY HOME & CAMPS bring health and happiness to young children.



Will you help to maintain the "Sunshine"?

Prolonged unemployment has greatly increased the work of the Settlement; and this means that a larger annual income is required.

Serious curtailment of activities must be made, unless funds are immediately augmented.

£676 is wanted to clear the existing debt on the Settlement income account and an increase of **£350** per year is needed to "carry on."

PLEASE HELP NOW

by sending a contribution, however small, in the enclosed envelope.

All contributions will be gratefully acknowledged.



Plate 24: "Bonnie Dundee?" Publicity Leaflet, c. 1920.

Source: DSU, *Leaflets*, GD/OC/GL4/6/5, DCA.

camps, held the potential to eradicate (if funds sufficed), the dark, hidden and disorganised spaces of the city. As a panoptic mechanism, the leaflet depicts Grey Lodge and the DSU casting its enlightening gaze across the city, creating a set of authoritative knowledges on the city's spaces and people.

In contrast to many of the homes of the working class, Grey Lodge provided a homely environment within which 'home' skills and values were reinforced. With the necessities of fresh air and healthful activity encouraged, Grey Lodge encouraged virtues which could be relocated to residents' own homes.

Activities Programme

In 1889, the DSU formed its Arts and Recreation committee with Patrick Geddes as Chairman. Club Work formed the core of this programme and sought "the development of a sense of responsibility in the young workers of the city."¹⁰¹ The value of Club Work was not to be underestimated and as the 1924 annual report suggested, "[i]t helps them [the young workers] to become useful and responsible citizens by providing healthy recreation, and what is perhaps more important, a healthy mental outlook."¹⁰² As such, the clubs were, according to the DSU's minutes, "keeping young men and women out of mischief."¹⁰³ They provided a safe and healthy space for the development of healthy minds and bodies.

¹⁰⁰ Driver, *Militant geographies*.

¹⁰¹ DSU, *Annual report*, 1920.

¹⁰² DSU, *Annual report*, 1924.

¹⁰³ DSU, Minute Books, GD/DC/GL 1/1/1,2, DCA.

These organised programmes (see plate 25) were a means of both gaining access to and improving the home environment, whilst at the same time determining what 'home' should be and mean. To these ends, the purpose of the DSU's recreational programme was two-fold. Firstly, it taught skills which could be taken back into the home to 'improve homelife'. As the programme of club work demonstrates, classes given to the women and girls epitomised the ideas of 'educative recreation' providing skills which could be practically used and applied in the home. Cookery and sewing classes were a means of overcoming what was described as Dundee's "ill-nourished and ill-clad children." Club Work provided a space to,

introduce those who have acquired distorted fragments of knowledge to more profitable and orderly methods of study, and to import standards of health and fitness to people who have had little chance to acquire them.¹⁰⁴

Through this programme of reform, the working class woman's home was the referential site for the majority of the DSU's classes and activities.

One activity that young men and women did participate in together was dancing on Saturday evenings. The *Dundee Courier* in 1922 reported on this activity in the following way:

With commendable breadth and outlook, the Social Union encourages dancing, because the officials know full well that if the young folks do not dance in the Grey Lodge premises they will seek the pleasure elsewhere.... At first the experiment looked daring, but success has justified it.¹⁰⁵

As such, the Grey Lodge provided what was described as an "environment of some charm"¹⁰⁶ within which dancing between men and women could take place. By

¹⁰⁴ DSU, *Annual report*, 1935.

¹⁰⁵ *Dundee Courier*, 15 March 1922.

¹⁰⁶ DSU, *Annual report*, 1935.

CLUBS.

<i>Club Leader,</i> - - -	Miss E. S. RILEY.
<i>Young Men's Leader,</i> - - -	Mr JAMES AIMER.
<i>Guide Captain,</i> - - -	Miss NELLIE STEVENSON.
<i>Scout-Master,</i> - - -	Mr T. BEATSON.
<i>Secretary,</i> - - -	Miss A. BROWN ROBERTSON.
<i>Convener,</i> - - -	Miss BATTING.

HELPERS.

Miss M. LAWRENCE—Needlework. Mrs ROBERTSON, Mrs R. C. COWFER, Miss RATTRAY, Miss KIDD, Miss SCOTT, Miss K. GRANT, Miss E. SHAW, Miss M. THOMSON, Miss M. PETERS, Miss STEWART, Miss M. JOHNSTON—Brown Owl. Miss F. M. KIDD—Tawney Owl. Miss BAXTER—Assistant Wolf Cub Mistress.	}	Music.	}	Guide Helpers.	}	Mr J. DUNN—Physical Culture. Mr W. M'GILLIVRAY—Carpentry. Mr WALTER HARDY—Assistant Scout-Master. Miss Gow, Mrs Ross, Miss N. Gow, Miss E. M. PULLAR, Miss CLARK, Miss PENNY, Miss REID, Miss B. PULLEN,	}	Education Authority Teachers for Needlework, Cookery, and Physical Culture.
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PROGRAMME.

YOUNG WOMEN (10 and over) —Membership Fee, 1d. per week.	
Monday,	7.15—COOKERY. Class Fee, 1/-
Tuesday,	7.0 —NEEDLEWORK. To include Blouse-making, Dress-making, Renovating, Embroidery. Class Fee., 2/-.
	9.0 —DANCING.
Wednesday,	7.30—PHYSICAL CULTURE. Class Fee, 1/-.
SENIOR GIRLS (14-16) —Membership Fee, 1d. per week.	
Thursday,	7.30—NEEDLEWORK.
	9.0 —GAMES and DANCING.
YOUNG MEN —Membership Fee, 3d. per week.	
Monday,	7.15—GAMES. Billiards, Bagatello, &c.
Wednesday,	8.30—PHYSICAL CULTURE.
Friday,	7.30—CARPENTRY.
Do.,	7.15—GAMES.
Saturday,	... —FOOTBALL.
GUIDES —8th Coy., Dundee—Membership Fee, 1d. per week.	
Thursday,	7.15.
BROWNIES —Membership Fee, ½d. per week.	
Tuesday,	5.0.
SCOUTS —9th Troup, Dundee—Membership Fee, 1d. per week.	
Friday,	7.15.
WOLF CUBS —Membership Fee, ½d. per week.	
Wednesday,	5.0.
MOTHERS' SEWING MEETING —Wednesday, 7.30—1/- per Session.	
DANCING for Young Women's and Young Men's Clubs.	
Saturdays, 7.30 to 10.30. Tickets 6d. each; Canteen extra.	
STORY HOUR —Sunday, 3.0 p.m. (Boys and Girls, 6-11 years).	

Plate 25: Clubs and activities programme.

Source: DSU, *Thirty-fifth annual report, 1922.*

providing this, DSU officials could ensure that young men and women were under their constant gaze and behaved 'appropriately' – rather than getting up to no good elsewhere. McGowan notes that, "[s]ocial reform produced an ever greater regulation of life precisely by promising increased security and happiness."¹⁰⁷ The DSU was not caught up in a programme which exerted a strict and rigid system of control upon women and children, and a language of control and authority does not pervade the DSU records. The project of reform of which the DSU was an important part was premised upon provision of new opportunities for Dundee's working classes. In contrast to traditional understandings of power and control, nobody was forced to attend the DSU's programmes and activities, and many people probably enjoyed and looked forward to them.¹⁰⁸ Indeed, it was likely that the skills taught were welcome and that the friendships made at Grey Lodge extended beyond the restrictions of the DSU.¹⁰⁹ Women and children were probably given opportunities that they would not have otherwise had. In this sense, women were implicated in their own surveillance. By taking part and probably even enjoying these recreational pursuits, women were enabling and participating in a regulation that became central to a body of knowledge about them.

Surveillance on this intimate level meant that control could be more or less scrupulous in response to local conditions. For example, the DSU's annual report for 1929 referred to the "greater need for personal relationships to prevent wayward

¹⁰⁷ McGowan, *Power and humanity*, 102.

¹⁰⁸ This is suggested in *DOHP* tape 013.

behaviour” in times of unemployment and enforced leisure. Indeed, the club work, along with holidays for children, took on greater importance in the 1920s when employment prospects in the jute industry were bleak and thus providing women and children with more ‘free time’. Surveillance and discipline therefore were not achieved in some detached, impersonal way (which readings of the panopticon usually solicit) but were realised through the creation of personal relationships between real people. Through its varied programme of activities, the DSU constructed a set of knowledges and created a substantial archive about ‘home’ in which the working classes - particularly working women and their children - were implicated.

Conclusions

Instead of treating the DSU archive as a finished source of information, this chapter has focussed on two sets of processes. First, the range of textual devices, including language, colour and photography, that were used in the production of the DSU’s published material. Second, the techniques and efforts involved in the collection of information. Although the DSU emerged from the institutional confines of the UCD, the processes of gathering and recording ‘data’ meant that DSU workers had to go out in the city, visit homes, talk to residents, and supervise activities. Here, Robinson’s term ‘noisy surveillance’ should be emphasized. Whether knocking on doors, detailing living conditions or organising activities, rent collectors, ‘visitors’ and club workers, all had direct contact with the working classes of Dundee. Indeed,

¹⁰⁹ Despite the DSU’s own record that their work was appreciated and friendships were forged between the different classes, it is difficult to know what those people who actually participated in the

the DSU's work depended upon the development and negotiation of relationships with the city's working classes, particularly its working women. As such, the DSU was not only an institutional effort but was based on the personal efforts of a myriad of workers who visited, mapped, surveyed, collected and supervised.

The published work of DSU contributed to a particular imaginative geography of the city - a public record of Dundee and its inhabitants that travelled beyond the confines of UCD and Grey Lodge to inform the work of different bodies within the city, notably the Sanitary and Health Departments. Importantly though, the DSU contributed to discourses on the city's working women, as the 1905 report commented:

Without women's labour the city would sink to the level of a small burgh: as a manufacturing centre it would possibly cease to exist. No other community, therefore, has a more vital interest in everything pertaining to the welfare of women.¹¹⁰

The DSU did not try to prevent women from working. Rather, it implemented a range of techniques aimed at scrutinising and improving their conditions of existence.

Many of the DSU's projects of reform focused on constructing particular notions of home. Although the 'home' has been understood and held as the 'private sphere', ideas of the public lay at the heart of its meaning. As Roderick notes, sanitary reform, in all its guises, introduced a conception of the home which, "rather than being a separate domain sealed off from the public realm, understands the home to

classes thought due to lack of information.

¹¹⁰ DSU, *Report on the housing and industrial conditions*, xi.

be entirely permeable and immanent to the public sphere.”¹¹¹ With concerns over race deterioration and the on-going project of Empire building, the family was turned into a medicalised and hygienic unit with the home an apparatus of health.¹¹² It was ‘naturally’ the mother who bore the responsibility for this unit. As Gillian Rose asserts:

By the mid-nineteenth century, women’s ovulation and maternal instinct had been ‘discovered’, and because women became fertile automatically, it was argued that their mothering was not under their conscious control – women were instinctive natural mothers. Women’s place was therefore in the privacy of the domestic home.¹¹³

Women were all seen as natural mothers, to be groomed for their predetermined ‘motherhood’. Women were to be responsible for this private sphere but for a particularly public agenda, as Asquith commented, Empire was “rooted in the home.”¹¹⁴ Using the DSU archive, along with Dundee’s MOH reports, chapter 7 takes these ideas of ‘home’ forward.

¹¹¹ I. Roderick, “Household sanitation and the flow of domestic space”, *Space and Culture*, 3 (1997) 1-4.

¹¹² N. Rose, “Medicine, history and the present”, in Jones et al., *Reassessing Foucault*, 48-72.

¹¹³ G. Rose, “On being ambivalent: women and feminisms in geography”, in *New Words, New Worlds: Reconceptualising social and cultural geography*, C. Philo (ed.), (Aberystwyth: Social and Cultural Geography Study Group, 1991) 156-163, 158.

¹¹⁴ Cited in A. Davin, “Imperialism and motherhood”, in F. Cooper, and A. Stoler (eds.), *Tensions of empire: colonial cultures in a bourgeois world* (California: University of California Press, 1997) 87-151, 97.

Chapter 7

Reforming Working Bodies: the Problem of Infant

Mortality

If mothers must work - and this is likely to remain a necessity for them - how best can the toll of infant mortality be reduced? ... Proper rest before and after childbirth; the education of mothers in the feeding of infants; training in the cooking of proper food at a low price, better methods for looking after children when the wage earner is absent from work - all these are parts of the answer.¹

The DSU's *Report on the housing and industrial conditions of the city* devoted a chapter to the study of infant mortality. Concerned with the high level of infant deaths, which, by 1904, stood at 174 per 1000 of the population, the role of women as workers and mothers was described by the DSU as an "unnatural condition of life."

In 1904, Dundee's infant mortality rate headed the list of the 15 principal towns in Scotland.² Various reasons, "both social and economic", were given for this, as the MOH noted in 1910:

Undoubtedly poverty is one of the most potent causes. It is also influenced by environment and very largely by the personal factor. The mortality varies greatly in families living side by side apparently under the same conditions as regards environmental and social status.³

The second half of this passage implies, however, that it was the 'personal factor' that was the most influential. The MOH cautioned against making unfair comparisons between Dundee and other cities, suggesting that "the peculiar condition of life here must be borne in mind":

¹ DSU, *Report on the housing and industrial conditions*, xiii.

² MOH, *Report* (for 1904).

³ MOH, *Report* (for 1910).

Our high death-rate is not due so much to the sanitary condition of the city,... But from our industrial conditions which give employment to a large proportion of married women.⁴

It was this factor, beyond all others, that was highlighted and became the key focus for concern. With infant mortality rates calculated, infant deaths were directly attributed to working women.

This chapter explores the attempt to enumerate the infant mortality rate in Dundee, and the diversity of techniques and interventions that were aimed at reducing it. I want to show that in Dundee, these interventions were specifically focused upon the city's large proportion of working women, and most especially upon the married working woman. In 1904, Lennox remarked that,

it is safe to conclude that on average 3000 child-bearing women in Dundee tax their energies in the toil of mill and factory life to the detriment of their maternal duties.⁵

Concerns over infant mortality took on a distinct urgency and a particular configuration due to the specificities of the city's employment structure. I will interrogate the processes through which working women were constructed in relation to the problem of infant mortality, both conceptually, by probing the power/knowledge relations through which women, particularly working women, were understood, and physically, by the process of literally 'placing' working women in particular sites of surveillance in attempts to reduce the IMR.⁶

⁴ MOH, *Report* (for 1900).

⁵ Lennox, *Working class life in Dundee*, 171.

⁶ Recent histories of the welfare movement have increasingly focused upon the development of programmes at the local level. For example, H. Marland, "A pioneer in infant welfare, the Huddersfield scheme, 1903-1920, *Social History of Medicine*, 6 (1993) 25-50; L. Marks, *Metropolitan maternity: maternal and infant welfare services in early twentieth century London* (Amsterdam: Rodopi, 1996). However, here I give more emphasis to the actual sites of reform and the very specific spatialities of their functioning.

In this chapter I draw again upon the work of the DSU but place it next to a close reading of the reports from Dundee's MOH, and a range of contemporary journals and newspapers. However, I start by exploring the form in which infant deaths have been recorded and their relation to working women.

Infant Mortality and Working Women

Infant deaths were first published in the United Kingdom as the Infant Mortality Rate (IMR) in 1877. Although infant deaths had been recorded prior to this through the work of the Registrar-General, it was not until 1877 that infant deaths were reported as the newly designated IMR statistic. The IMR not only became a new statistical convention; according to Armstrong, it was also indicated a changing conceptualisation of the child:

Whereas before 1877 the Registrar-General had provided one death rate for everyone (often sub-divided for men and women), after 1877 the appearance of a new statistic signified the emergence of a new object of social and medical interest.⁷

With the Victorians' fetish for statistics, this change in the *form* of recording infant deaths was particularly significant. The IMR indicated a shift in the ontology of the infant from the biological to the social realm, with infant deaths deemed to be a statistical point of elaboration and comparison. The IMR was taken up by a range of commentators, who explored its connection with other social variables. For example, Devine's paper 'Some social factors in the causation of infant mortality', and Newman's text *Infant Mortality: A Social Problem*, both published in 1906, demonstrate how infant deaths had become a societal issue. The IMR became an important interpretative tool with which to

⁷ D. Armstrong, "The invention of infant mortality", *Sociology of Health and Illness*, 8 (1986) 211-232, 212-3.

assess contemporary urban life in Britain. The collation of the IMR signified the construction of a new and visible population that increasingly became the focus of a growing medical and reformative gaze.

The study of infant mortality and the IMR has traditionally been the preserve of demographers, who, in their various disciplinary guises, have been interested in both the technicalities and reliability of measuring infant deaths and determining various scalar, temporal and spatial changes.⁸ Although this body of work has been crucial in providing greater insight into both the patterns and causes of infant mortality (taking into consideration the specificities of class, gender, culture, socio-economic circumstances and environmental diversity), it has generally been reluctant to engage in more theoretically orientated research both within and beyond geography.⁹ Among other things, this has kept the study of infant mortality and the use of the IMR largely detached from more recent theorisings on the body and embodiment.

This chapter is concerned with the specific relationship between infant deaths and working mothers in Dundee, and the ways in which the regulation of the infant's life was simultaneously the regulation of the mother's life. Through the use of the

⁸ See A. Bideau, B. Desjardins, and H. Brignoli (eds.), *Infant mortality in the past* (Oxford: Clarendon, 1997); C. Corsini and P. Viazzo, *The decline of infant and child mortality: The European experience: 1750-1990* (The Hague: Kluwer International, 1997); C. Galley and N. Shelton, "Bridging the gap: determining long-term changes in infant mortality in pre-registration England and Wales", *Population Studies*, 55 (2001) 65-77; N. Williams and G. Mooney, "Infant mortality in an 'Age of Great Cities': London and the English provincial cities compared c.1840-1910", *Continuity and Change*, 9 (1994) 185-212; R. Woods and N. Shelton, *An atlas of Victorian mortality* (Liverpool: Liverpool University Press, 1997).

⁹ See for example E. Graham, "Breaking out: the opportunities and challenges of multi-method research", *Professional Geographer*, 51 (1999) 76-89; E. Graham, "What kind of theory for what kind of population geography?" *International Journal of Population Geography*, 6 (2000) 257-272.

IMR, a very specific discourse was created, which revolved most especially around the married working woman.¹⁰

The relationship between infant and mother has been explored primarily by historians and geographers who have placed infant mortality and 'motherhood' in their wider historical, geographical and discursive contexts.¹¹ Such studies have broadened understandings of women's work and reproduction in two crucial ways. Firstly, they have moved beyond the quandaries of the demographers 'data', and secondly, they have enlarged our comprehension of the relationships between mother and child that were formed through the contemporary rhetoric brandished by figures like G. Cadbury et al (1906), H. Jones (1894), and G. Tuckwell (1908)¹², who condemned (if at times sympathised with) working mothers for putting the lives of their babies at risk, whether before, during, or after birth. Where analysis of infant mortality has traditionally concentrated on the infant, these studies probe the relationship between infant and mother, and how "the recognition of the infant as a discrete entity"¹³ created new conceptualisations of 'mother'.

¹⁰ However, it was not confined to the married working woman. As the previous chapter demonstrated, training for motherhood occurred at a young age for girls as they were taught various domestic skills.

¹¹ Much work has focused upon the link between infant mortality and the employment of women, for example, E. Garrett, "Was women's work bad for babies? A view from the 1911 census of England and Wales", *Continuity and Change*, 13 (1998) 281-316; D. Graham, "Female employment and infant mortality: some evidence from British towns, 1911, 1931 and 1951", *Continuity and Change*, 9 (1994) 313-346; C. Holdsworth, "Women's work and family health: evidence from the Staffordshire Potteries, 1890-1920", *Continuity and Change*, 12 (1997) 103-128.

¹² Cadbury, *Women's work and wages*; H. Jones, "The perils and protection of infant life", *Journal of the Royal Statistical Society*, LVII (1894) 1-98; G. Tuckwell (ed.), *Women in industry* (London, 1908).

¹³ Armstrong, "The invention of infant mortality", 212.

Following Armstrong and many others who have pursued what is broadly termed a 'social constructionist' approach to the analysis of scientific and medical knowledge, or 'medical culture'¹⁴, I view infant mortality as a product of a social context of enquiry. In particular, I want to explore how knowledge of infant mortality was created and marked out through the production of various sites of reform. As Armstrong suggests:

By the early 20th century ... infant mortality, which three decades earlier had not even existed as an analytical framework, had become the point on which was articulated the conceptualisation of the social, the surveillance of the new welfare schemes, the analysis of home life and hygiene and the evaluation of motherhood.¹⁵

This chapter examines how the programmes of reform that were established specifically to reduce infant mortality, attached certain meanings to 'mother' and 'motherhood', and how such meanings were produced in and through specific urban geographies.

The Problem of Working Bodies

In contrast to the demographically orientated literature of infant mortality that has focused upon statistical implications, this chapter extends the work done by social historians and geographers to work through more recent theorisings of embodiment and the body. In recent years, the body has become an important site and space of geographical inquiry. In contrast to more traditional 'medical geography', which has remained largely atheoretical,¹⁶ the body (or bodies) have been heavily theorised by feminists and become a central part of 'new medical

¹⁴ D. Lupton, *Illness, disease and the body in western societies* (London: Sage, 1994).

¹⁵ Armstrong "The invention of infant mortality", 213-214.

¹⁶ A. Litva and J. Eyles, "Coming out: exposing social theory in medical geography", *Health and Place*, 1 (1995) 5-14.

geographies'.¹⁷ The reproductive body has come under special scrutiny, as it brings into focus important and contentious questions about what exactly constitutes the body, its boundaries and the relation between 'self' and 'other'.¹⁸

There is little consensus about how best to conceptualise and understand bodies or social reproduction. Through essentialist perspectives, the reproductive body has been perceived as both a trap that must be overcome¹⁹ and an essentialising difference to rejoice.²⁰ In contrast, social constructionist thinkers have established a firm distinction between sex and gender to view the reproductive body as a *tabula rasa* or site of inscription through which the feminine is constructed.²¹ The inscription of the reproductive body has been forged through an encroaching medical knowledge. Pursuing a Foucauldian approach, I view medical knowledge as a technology of power/knowledge through which gender roles and identities have been constructed. Feminists have been particularly influential in critiquing medical knowledges and re-presenting them as medical 'culture'.²² Focus has primarily been on deconstructing the masculinised tradition of Western medicine and the ways in which women's bodies have been progressively medicalised, especially with regard to reproduction, childbirth and child rearing. Feminists have demonstrated that meanings harnessed to the 'female body' have been worked through the mind-body binary, rendering women and the 'feminine'

¹⁷ In the latest progress report on health and medical geography, Parr suggests that one of the most important challenges in the subdiscipline has come from the work on the geographies of the body. H. Parr, "Diagnosing the body in medical and health geography: 1999-2000", *Progress in Human Geography*, 26 (2002) 240-251.

¹⁸ See B. Brook, *Feminist perspectives on the body* (London: Longman, 1999) chapter 2.

¹⁹ S. Firestone, *The dialectic of sex: the case for a feminist revolution* (New York: William Morrow, 1971).

²⁰ A. Rich, *Of woman born: motherhood as experience and institution* (London: Virgo, 1976).

²¹ See E. Grosz, *Volatile bodies: towards a corporeal feminism* (Indiana: University Press, 1994); E. Grosz, *Space, time and perversion: essays on the politics of bodies* (London: Routledge, 1995) 196-199.

inferior to men and the 'masculine'. Although geographers have enthused over the various spaces and places through which processes of medicalisation are engendered, few of these have focused specifically on the processes of gendering.²³

However, Grosz has criticised what she calls "the discursivation of bodies"²⁴ for rejecting the corporeal, and therefore attempts to re-connect the representational with the material.²⁵ Robyn Longhurst has brought this re-engagement to the attention of geographers, highlighting in particular the discursive practices through which pregnant bodies are constructed and the process of embodiment through which the body 'becomes'.²⁶ Exploring the ways that pregnant bodies are experienced as 'out of place' in public space, she suggests:

They are bodies whose boundaries are constructed as unpredictable in the public realm. It is unsurprising, therefore, that these pregnant bodies are thought to be in need of surveillance and containment.²⁷

As the processes of pregnancy, birth and lactation reflect very real material and visible changes in the body, the discursive and material need to be re-connected to appreciate the geographies of pregnancy and motherhood.

To comprehend more fully the understandings and representations of working women in Dundee, there is a need to critically reposition the literature on infant mortality with respect to these ideas on the body. Despite Kearns' call for an

²² See Lupton, *Illness, disease and the body in western societies*.

²³ For example, S. Craddock, *City of plagues: disease, poverty, and deviance in San Francisco* (London: University of Minnesota Press, 2000).

²⁴ Grosz, *Space time and perversion*, 31.

²⁵ Grosz, *Volatile bodies: towards a corporeal feminism*.

²⁶ R. Longhurst, "The geography closest in - the body...the politics of pregnability", *Australian Geographical Studies*, 32 (1994) 214-223; "The body and geography", *Gender, Place and Culture*, 2 (1995) 97-105; "(Dis)embodied geographies", *Progress in Human Geography*, 21 (1997) 486-501.

“embodied medical geography”,²⁸ this challenge has largely been ignored where studies of infant mortality are concerned. But by working out of these two literatures, the construction of the IMR and the responses to it, can be read as attaching a set of responsibilities to the ‘mother’ and a set of norms and expectations over the use of her ‘reproducing’ body. These norms and expectations were both produced through and reproduced the discursive terrain of public health at the turn of the century.

The Project of “Constant Supervision”

As medical knowledge was increasingly used to scrutinise the health of the population (or specific ‘problematic’ populations), I follow the idea that public health discourses of the late nineteenth century (including the IMR) worked as a modality of ‘biopower’. Tied to what Foucault referred to as an accelerating ‘noso-politics’, health and sickness became observable and curable characteristics of a population, with health no longer the concern of the individual but the concern of the state.²⁹ As Foucault insisted: “[t]he imperative of health [became] at once the duty of each and the objective of all” as the individual became responsible for the general conditions of life.³⁰ An individual’s health became the marker of society’s health and central to the wider process of nation-building. As Craddock and Dorn note, “[t]he clinical gaze is not restricted to the body’s interior, because claims of knowledge about the body extend into knowledge

²⁷ R. Longhurst, *Bodies: exploring fluid boundaries* (London: Routledge, 2001) 65.

²⁸ R. Kearns, “Medical geography: making space for difference”, *Progress in Human Geography*, 19 (1995) 251-259, 256.

²⁹ M. Foucault, “The politics of health in the eighteenth century”, in Gordon, *Power/knowledge*, 166-182.

³⁰ *Ibid.*, 170.

claims about the individual in society.”³¹ The ways in which women’s bodies have been understood, the set of knowledges that have been attached to them and which have been constructed as ‘natural’, worked not only on the body itself, but beyond, connecting them women to larger networks of meaning at a variety of scales. In Dundee, working women were tied not only to the city’s high IMR, but also, through a rhetoric of health reform, to the their role in empire building and the provision of a strong and healthy population.

In her article ‘Imperialism and Motherhood’, Davin describes how motherhood was fashioned in the understanding that population equals power, and was framed amidst arguments about the need to strengthen Britain’s imperial position in the world. With the statistical assault on childhood,

Middle-class convention took for granted that the proper context of childhood was the family, and the person most responsible the mother. So if the survival of infants and the health of children was in question, it must be the fault of the mothers; and if the nation needed healthy future citizens (and soldiers and workers), then mothers must improve.³²

Women, individualised as mothers, became responsible for the collective well-being of the nation. They were defined primarily through their reproductive capacity, and discourses of motherhood and the family which, seen as the bulwark of society, deemed that any woman who transgressed this reproductive function was deviant.³³

It was the Boer War (1889-1902), which, according to Dwork, “crystallized and emphasized the, until then, relatively latent fears of national inefficiency and race

³¹ S. Craddock and M. Dorn, “Nationbuilding: gender, race, and medical discourse”, *Journal of Historical Geography*, 27, (2001) 313-318, 313-314.

³² Davin, “Imperialism and motherhood”, 90.

degeneration".³⁴ And Soloway points to three foci of concern: the effects of urbanisation on the health of the working classes, problems of military recruitment, and the falling birth rate.³⁵ In an industrial city such as Dundee, these three concerns had a particular purchase. With a falling birth rate, and overcrowded tenements alongside the mills and factories, urban degeneration was confirmed by Dr. Lennox, when, in his 1904 study of working class life in Dundee, he found that just over a half of the males who presented themselves for recruitment into the army had to be turned away because they were "undersized, underfed and under strength".³⁶

From the 1880s onwards, women in Dundee, as elsewhere, were brought under closer scrutiny or 'medical supervision'. The Medical Officer of Health reports for the period from the late 1870s to the early 1930s, demonstrate that infant mortality became a central concern to both the Medical Officer of Health and the City's Sanitary Inspector. Furthermore, there was a gradual shift in understanding of how the problem should be remedied, a shift which involved a mapping of the periods before, during, and after birth. In 1929, Dundee's MOH Report remarked:

expectant mothers are beginning to realise the necessity for constant medical supervision.....Every pregnant woman must be the subject of continuous study until her confinement is over.³⁷

Here I explore this project of "constant medical supervision" and the idea that it was equally applicable to "every pregnant woman" in Dundee. I focus on the spatial trajectory of a myriad of institutions, experts and personnel that converged

³³ D. Gittens, "What is the family? Is it universal?", in L. McDowell, and R., Pringle (eds.), *Defining women: social institutions and gender divisions* (Cambridge: Polity Press, 1992), 67-74.

³⁴ D. Dwork, *War is good for babies and other young children: a history of the infant and child welfare movement in England 1898-1918* (London: Tavistock, 1997), 11.

³⁵ R. Soloway, "Counting the degenerates: the statistics of race deterioration in Edwardian England", *Journal of Contemporary History*, 17 (1982) 137-164.

upon women at the turn of the twentieth century and literally placed them within a matrix of reform. I work through four site-specific investigative strategies that were increasingly used: house visitations, the milk depot, restaurants for nursing mothers, and the city's Maternal and Child Welfare Service.

Sites and Strategies of Reform

Since the nineteenth century, health and medicine have been defined through certain institutional forms, most notably the hospital, asylum and consulting room. However, the nineteenth century saw the establishment of a number of sites which, together, constituted an apparatus of health. As Nikolas Rose suggests:

The pervasiveness in our modern 'liberal' experience owes as much to these other apparatuses of health as it does to the hospital and the medicine of the clinic.³⁸

In this section, I focus upon three sites and strategies that were used to capture two specific populations: women and children. Unlike the hospital and clinic, these strategies were not necessarily confined to one institutional or architectural form, but were practiced both by a range of institutions and diffused across the city.

House Visitations

Along the lines of the visits carried out under the auspices of the DSU, from 1899 there were increasing calls by the MOH for house inspectors to insist "on the proper sweeping and washing, as well as limewashing and cleansing of passages

³⁶ Lennox, *Working class life in Dundee*.

³⁷ MOH, *Report* (for 1929).

³⁸ Rose, "Medicine, history and the present", 64.

and common stairs, in accordance with the bye-laws.”³⁹ But with infant mortality at 177 per 1000 live births, another type of house visitation was also wanted. The MOH suggested that the most practical means of reducing infant mortality was through the,

regular and systematic visitation of the homes of the poor by tactful and intelligent women who would teach the women and young girls of our slums the advantages of proper cleanliness of person, and of their homes.⁴⁰

The report continued that it was by taking a “personal interest” in the welfare of the “class amongst whom ... mortality is so high” that “much could be done in the way on educating them to better things.”

Therefore, one of the first steps taken to combat a high IMR was the installation of a system of house visitations, with the appointment in January 1903 of a team of two ‘Female Health Visitors’, Misses Swanson and Whyte. Under the guise of maintaining health and cleanliness of home and person, these ladies would, “specially direct their attention to the lessening of our infant mortality, by instructing ignorant and careless mothers on the subject of infant hygiene, and especially the feeding of infants.”⁴¹ The Health Visitors would keep notes on the houses they visited and the residents they saw with statistics collected. Table 10 shows the priorities of this quantitative evaluation.

³⁹ MOH, *Report* (for 1899).

⁴⁰ MOH, *Report* (for 1901).

⁴¹ MOH, *Report* (for 1902).

Table 9: Statistics collected by Health Visitors

Number of houses visited
Number of houses re-visited
Number of houses found dirty
Number of houses overcrowded by family
Number of damp houses
Number of houses where beds were to be cleaned
Number of houses where young children were left without proper attendance
Number of houses where windows were to be made to open
Number of stairs regularly cleaned
Number of places where rubbish required to be removed
Number of nuisances recorded

Source: MOH, *Report* (for 1903).

Over the course of a year, they would visit between 10,000 and 14,000 houses, commenting in their annual reports on those found dirty and overcrowded and where children were left without parental attendance. In a similar way to the work of the DSU, health visits aimed to create a “sense of responsibility”⁴² in parents and, for the mothers specifically, “to try to stimulate in them a desire for betterness, and get them to take a pride in keeping themselves, their children, and their houses clean.”⁴³ The “personal appearance of the mother” was also a cause for concern.

Once a month the health visitors would call at the Royal Infirmary and see the Sister in charge of the Children’s Ward. She would then give them a list of any children who had been admitted in a dirty or verminous condition. Misses Swanson and Whyte would then “visit the homes of these children and find in most cases that they required attention.”⁴⁴ Furthermore, the health visitors noted that they would receive complaints from school teachers on children who came

⁴² MOH, *Report* (for 1905).

⁴³ MOH, *Report* (for 1903).

⁴⁴ MOH, *Report* (for 1905), Health Visitors report.

into school in a dirty condition, and they would then be visited. The work of these visitors therefore extended beyond the immediate institutional confines of the health department and drew information from a wider and often more discreet apparatus of health surveillance.

With the 1907 Notification of Births Act, visitations were further systematised. The object of this compulsory notification was to enable the early visitation of mothers “whenever it is believed that they may be helped or infant life saved by advice or assistance.”⁴⁵ Working through district committees, teams of ‘lady’ volunteers, including DSU workers, covered the city, visiting mothers living in their particular district who *they* considered would likely require and benefit from help. Although notification was compulsory, the visitations that extended from this were not; visitors deciding themselves who was most likely in need of help and assistance. In instances where subsequent visitation was considered necessary, the names of mothers would be passed on to the district’s Committee Convenor, and by her sent to the Lady Visitor who would continue to look after the case. As a result of these visits, in 1906, the Health Visitors report remarked that “[o]n the whole there is a very distinct improvement in a very large number of homes as a result of our visitations.”⁴⁶

House visits were forged through particular understandings of class and gender and smacked of middle-class notions of who was and was not ‘in need’. Framed through middle-class thinking of public and private space and perceived ideals of

⁴⁵ MOH, *Report* (for 1908).

⁴⁶ MOH, *Report* (for 1906), Health Visitors Report.

home⁴⁷, visitations were an exploration into the lives of the poor and working class of Dundee. Working women became the subject of a middle-class gaze and process of 'knowledge' accumulation, that travelled upwards through a new hierarchy of experts. A central trope of these visits was the instruction of "ignorant" or "careless" mothers⁴⁸, rhetorical characterisations that chastised the mother and ensured that she was the first point of blame.⁴⁹ House visitations, investigations of their physical structure and the relationships inside them, reasserted the public/private distinction, re-circumscribed the home as a discrete space (whereas in the tenement blocks of Dundee the home was more of a flexible space which could extend beyond a single family dwelling) and reaffirmed the 'acceptable' boundaries of woman. The comments made in the Health Visitors notebook suggest these priorities:

Table 10: "A few cases form the health visitors notebook"

Case A. - Child age 7 weeks died from diarrhoea (cow's milk), mother at work - 4 children alive 11 dead - all except two (13 and 14 months) in the first year of life. Mother left work 3 months before, and returned 2 weeks after birth of child. Father is consumptive.

Case B. - Child age 5 months died from epidemic diarrhoea (cow's milk) - mother works - 3 children alive and 9 dead. Parents of intemperate habits.

Case C. - Child age 10 months died from diarrhoea (breast and milk) - 2 children alive and 9 dead - 6 in first year.

Case D. - Child aged 7 weeks died from gastro intestinal catarrh (cow's milk) - mother works - 2 children alive and 7 dead - 5 in first year. Mother left work 3 months before child's birth; been sewing sacks since.

⁴⁷ See C. Hall, *White, male and middle class: explorations in feminism and history* (Cambridge: Polity Press, 1992).

⁴⁸ MOH, *Report* (for 1902).

⁴⁹ Starkey uses these ideas but for a more recent period. See P. Starkey, "The feckless mother: women, poverty and social workers in wartime and post-war England", *Women's History Review*, 9 (2000) 539-557.

Case E. - Child of 11 months died from gastro-enteritis (bread and milk) - mother works - 3 children alive, 10 dead - 9 in first year.

Case F. - Child 5 months old died from gastro-intestinal catarrh (cow's milk and bread and milk) - mother works - 3 children alive, 9 dead - 5 in first year - child seemed neglected.

Case G. - Child 6 months died from diarrhoea (rice biscuits), mother works - 3 children alive, 10 dead - 7 in first year. Parents are intemperate.

Source: MOH, *Report* (for 1906), Health Visitors Report

The home was turned into an important apparatus of health as relations among persons (i.e. mother and child) and activities (i.e. the feeding of infants) were scrutinised in the name of public health. Thus the scrutinisation of home was simultaneously the scrutinisation of bodies.

Milk Depot

Health visitors often reported on how they found young children and babies with nothing but soaked bread to eat, prepared by mothers in the morning before leaving for work. Improper feeding was seen as “a very large” factor in the city's infantile death rate, particularly through the feeding of impure milk, causing diarrhoea. The MOH declared in 1899 that “[m]ilk is the vehicle by which the infection of Diarrhoea is largely carried”⁵⁰, and it was commonly accepted that bottle-feeding with impure milk was the major risk factor for epidemic diarrhoea.⁵¹ In Dundee, this had a particular hold and was symptomatic of a number of factors: the improper storage of artificial milk, the large numbers of women who did not breast feed, and the large number of women who returned to work shortly after childbirth.

⁵⁰ MOH, *Report* (for 1899).

⁵¹ See Dwork, *War is good for babies and other young children*, and A. Fildes, “Infant feeding practices and infant mortality in England, 1900-1919”, *Continuity and Change*, 13 (1998) 251-280.

In 1904, the Council set up a milk depot for the supply of sterilised milk to achieve two ends. First, the reduction in the infant mortality from diarrhoeal diseases, and second:

Another result which is incapable of being expressed in figures would be that the surviving infants so fed would grow up into healthier and hardier boys and girls - more capable of resisting disease by reason of their improved physique, a result eminently desirable in those days when so much is being heard of the physical degeneration of the race.⁵²

It was made clear from the outset that the depot was “not intended to relieve mothers of the responsibility of suckling their infants”... “No food, however scientifically or carefully prepared, can take the place of that provided by Nature for this purpose.”⁵³ The report emphasised that the mortality of breast-fed children was always much lower than those brought up by hand.⁵⁴ Breast feeding, it was considered, would be the best preventative of infant mortality and “[e]ven if this were persevered with for only the first three months a great diminution of our infant mortality would follow.”⁵⁵ Indeed, with breastfeeding considered as a child’s birthright,⁵⁶ a key task of the lady health visitors was to encourage the practice by explaining the leaflet given out by the Registrar to all parents when they registered births. This leaflet entitled ‘Hints Regarding the Management of Children’, read:

If the Mother is able to nurse the child it should have nothing but breast milk for five or six months. It should be put to breast at regular intervals – every two hours during the day for the first two months, and this interval gradually increased till it is fed about every four hours.⁵⁷

⁵² MOH, *Report* (for 1903).

⁵³ *Ibid.*

⁵⁴ MOH, *Report* (for 1904).

⁵⁵ MOH, *Report* (for 1907).

⁵⁶ MOH, *Report* (for 1915).

⁵⁷ MOH, *Report* (for 1913).

Despite the belief that breast-feeding was natural, it nonetheless had to be taught to mothers with precise instructions on how it should be done. Breastfeeding remains an understudied topic in the theorising of the reproducing body,⁵⁸ but such instructions, coupled with the collation of statistics on the feeding of infants, demonstrate how women's bodily movements and gestures were minutely scrutinised to highlight 'proper' maternal behaviour. In addition to details on how to breast feed, women were similarly given instructions on how they should look after themselves:

While nursing, the mother should live plainly. Her diet should be light and nourishing. All kinds of spirit should be avoided. It must be borne in mind that anything which will injure the mother will also injuriously affect the child.⁵⁹

Care of the mother's own body was crucial, even after birth.

If the mother was not breast feeding, the 'Hints' included very specific instructions on how bottle-feeding should be practiced. Figure 4 highlights the six points reiterated by the health visitors. It gives instructions on the preparation of milk, and, in the same way as the breastfeeding advice, the exact position of the infant. Point six urged that, if following the instruction and the child was not putting on weight, then medical advice should be sought. The 'Hints' therefore provided mothers with a point of reference from which the norm of growth could be set out.

⁵⁸ See C. Stearns, "Breastfeeding and the good maternal body", *Gender & Society*, 13 (1999) 308-325; and R. Pain, C. Bailey and G. Mowl, "Infant feeding in North East England: contested spaces of reproduction", *Area*, 33 (2001) 261-272. Both of these papers focus on current breast feeding practices and women's experiences of breast feeding in public. However, they suggest that although breast-feeding is perceived by mothers themselves as a practice that is natural, many found it difficult and had to be taught how to do it.

⁵⁹ 'Hints regarding the management of children', MOH, *Report* (for 1913).

Figure 4: Hints Regarding the Management of Children.

HINTS REGARDING THE MANAGEMENT OF CHILDREN
Issued by Authority of the Health Committee of Dundee Town Council

.....

There is no kind of nourishment for a child to be compared with its mother's milk. If this is not available, the best substitute is pure cow's milk with an equal quantity of hot water and half as much lime water - the whole to be sweetened with a little sugar. In this case the following directions should be carefully observed:

1. The milk should be boiled. This makes it quite safe for the young children.
2. Prepare no more milk than can be taken at the once. What is left should be put out.
3. Do not lay the child asleep with the teat in its mouth. This is sure to lead to colic.
4. Keep the bottle scrupulously clean. It should be thoroughly washed after it has been used, and then laid in cold water till it is required again. The tube and the teat must be carefully cleaned, so that no curdled milk is allowed to remain in them. It is better to have two bottles and use each alternately.
5. Corn flour, bread, arrowroot, or any kind of starchy food should never be given to young infants. Milk is their only proper and safe food.
6. If the child is not increasing in weight from week to week there is something wrong and medical advice should be sought.

Source: MOH, *Report* (for 1913).

Care was taken to provide depot milk "only to mothers who, for some reason or other, are unable to suckle their infants"⁶⁰, and recorded the number of supplies given out per month and the ages at which infants were supplied. Impressed with results of the depot's first year, the 1905 MOH report noted:

we can claim that by far the large majority of children from this source have thriven mightily, and that but for the carelessness and indifference of many parents who will not take the trouble to feed their infants personally, as most do in the case of the milk supplied from the Depot, our numbers as a result would have been even more favourable.⁶¹

When parents were taken off the books, they were visited and their reasons for stopping ascertained. In cases of infant death from diarrhoea or diseases of the stomach where the chief factor was considered improper feeding, a visit was then

⁶⁰ MOH, *Report* (for 1907).

made by the health visitor and “inquiries made into the manner in which the infant had been reared.”⁶² In 1905, enquiries were made in 78 cases of infant mortality with the following results:

Table 11: Enquiries into cases of infant mortality in 1905.

<p><i>Of 43 infants who died from diarrhoeal diseases -</i> 8 were breast fed 8 were partly breast fed 27 were bottle fed</p> <p><i>Of those who died from stomach infections -</i> 8 were breast fed 10 were partly breast fed 17 were bottle fed</p>
--

Source: MOH, *Report* (for 1905).

Through these statistics, the bottle feeding of infants was proven to be responsible for the majority of deaths from diarrhoeal diseases, as well as being the single most important influence in deaths from stomach infection. The report concluded that “[t]hese particulars show that the incidence of these diseases is much heavier among children who are fed artificially than those fed naturally.”⁶³

Although breast feeding was popular amongst the working classes due to its cheap and convenient nature, the danger lay in the “indiscriminate feeding which begins when mother returns to work.”⁶⁴ ‘Improper feeding’ was used to indicate the care of the child more generally. With legislation restricting women’s employment within the first four weeks after birth, many women in Dundee, out of either choice or necessity, still left their newly born in the care of a ‘hawdie

⁶¹ MOH, *Report* (for 1905).

⁶² *Ibid.*

⁶³ *Ibid.*

wife' - a neighbour or family relation.⁶⁵ This practice was reprimanded by both the Medical Officer of Health and the DSU, who urged:

Where a child is put out to nurse it is not only deprived of maternal care, but the chance is that it will be improperly fed. The woman to whom it is entrusted has no special qualifications, and is, in the majority of cases, old and past work.⁶⁶

Lady Health Visitors found old women who (often brought in from the poorhouse) "are incapable of taking charge of themselves" left in charge of several infants, with closed up bottles, and only sour curdled milk, cold tea or raw oat flour. Such women were rebuked by the visitors as care by anyone except the mother was assumed dirty, incompetent and irresponsible.⁶⁷ Public health discourse interrupted traditional family and neighbourhood networks, admonishing long-established local knowledges and replacing them with an official knowledge of child rearing.⁶⁸

Post-natal concerns were directly linked to those women who worked in Dundee's mills and factories through a 1907 Home Office Enquiry. In conjunction with the MOH, a working class district was selected "in which a reasonable proportion of women worked in the mills and factories".⁶⁹ It aimed to "get a return of all the births which occurred in that district - to visit homes of the mothers, and to keep the children under observation during the first year of life". Of the 632 infants born, 596 were kept under observation, 350 mothers whom were employed in the mills and factories (see table 12).

⁶⁴ MOH, *Report* (for 1908), Health Visitors report.

⁶⁵ Evidence for this comes not only from the MOH reports but also from oral histories. See DOHP tape 023

⁶⁶ DSU, *Report on housing and the industrial conditions*, 77.

⁶⁷ Davin, *Imperialism and motherhood*.

⁶⁸ B. Ehrenreich and D. English, *Witches, nurses and midwives: a history of women healers* (New York: The Feminist Press, 1973).

⁶⁹ MOH, *Report* (for 1909).

Table 12: Findings of the 1907 Home Office Enquiry.

No. of families	Description	Total Births	Living	Dead	Died under 1 year
363	Workers	1334	914	420 (31.5%)	287 (18.2%)
73	Occasional Workers	345	257	88 (25.3%)	63 (18.2%)
160	Non Workers	770	598	166 (21.6%)	98 (12.7%)
596		2447		647 (27.5%)	

Source: MOH, *Report* (for 1909).

Highlighting post-natal concerns, the table shows that those infants belonging to workers and occasional workers had the highest proportion of children who had died.

Restaurant for nursing mothers

The clause in the Factory and Workshop Act, 1891, which prohibits the employment of a woman within one month of her having given birth to a child, although excellent in its intention, has effected apparently very little good, for its administration is extremely difficult in a city like Dundee, where a woman can obtain employment at 20 different works if she wishes, and in none of which will she be recognised. ...The period of one month is considered by many too short, three months' respite from work being suggested by medical men as more desirable.⁷⁰

The post-natal circumstances of the mother were scrutinised through both legislation, research and spaces of reform. In 1906, the offer of £100 for three years was made to the Dundee Social Union for the experiment of 'restaurants' for nursing mothers. The first was opened on 22 May 1906 in Temple Lane, and the second in March 1907 in Union Street, Maxwelltown. The first of their kind to be instituted in Britain, the DSU restaurants had three objectives: to encourage

breastfeeding of infants, to discourage married women's work, and to provide a centre for educational work among mothers.⁷¹ Breastfeeding was encouraged by providing a good and nourishing dinner for mothers who nursed their babies, and a maternity benefit club was formed to provide a weekly allowance for three months to mothers who stayed away from work. In addition, "simple, practical lectures" were given to mothers on how to feed and clothe their babies. This contributed to the notion of "Scientific Motherhood", whereby women had to be taught how to be good mothers.⁷² Through the restaurant, women were expected to follow the directions of a new array of childcare experts. As Apple suggests, this made mothers simultaneously responsible for their children, yet incapable of carrying out that responsibility.⁷³

The restaurant provided a space within which the health of both mother and child could be scrutinised. Plate 26 shows the clean, and ordered interior of the restaurant with tables neatly set and weighing scales taking pride of place in the centre of the hall. In addition to keeping a record of all newly born babies, the babies were regularly weighed to determine 'normal' growth into childhood:

Twice during the year, charts of the weights were submitted to the committee, and prizes were awarded to those babies who had come most regularly and made steady progress.⁷⁴

With babies weighed, statistical comparisons through time could be made. The 1908 Medical Officer of Health reported how "[t]he increasing weights of the

⁷⁰ "Dundee's mill and factory workers", *DYB* (for 1901), 207.

⁷¹ M. Valentine, *Explanatory booklet on the Dundee Social Union* (Dundee, 1920).

⁷² See R. Apple, "Constructing mothers: scientific motherhood in the nineteenth and twentieth centuries", *Social History of Medicine*, 8 (1995) 161-178.

⁷³ *Ibid.*

⁷⁴ MOH, *Report* (for 1908).



Plate 26: Interior of restaurant for nursing mothers
Source: *Dundee Photographic Survey* (Dundee, 1916).

'dinner' babies show how much they benefit by one good meal a day being issued to the mothers"⁷⁵. And as one journalistic investigator enthused:

Whenever two ounces had been put on the mother was satisfied, and the nurse generally looked up the card on such cases and told the mother if her child was equal in weight to the normal weight of its age.⁷⁶

Mothers wanted their child to fit in with the 'norm', an assurance to herself that she was an adequate parent.

The restaurant was not only a discrete and enclosed space, it also worked through a process of locating, a "partitioning" of bodies.⁷⁷ This proceeded through establishing the presences and absences of all those on the restaurant's books. To encourage attendance and create a sense of responsibility amongst mothers, the restaurant awarded prizes for both regular attendance and progress and this partitioning was complemented by a process of constant reporting that extended beyond the restaurant. Before mothers entered the restaurant they had been scrutinised by Dundee's Maternity Hospital and Royal Infirmary who provided the restaurant convenors with the names and addresses of those they believed would benefit from its assistance. After mothers and babies had left the restaurant, they would be further checked upon and their progress monitored.⁷⁸

In 1908, two further restaurants were opened in Lochee and Blackscroft. In their first year, there were 233 names on the books of the Temple Lane Restaurant and 71 at Union Street. However, daily attendance was far lower at 20 to 44 at Temple Lane and 1 to 15 at Union Street. In 1909, daily attendance remained in

⁷⁵ MOH, *Report* (for 1908).

⁷⁶ *Dundee Advertiser*, 22 June 1907.

⁷⁷ Foucault, *Discipline and punish*, 143.

⁷⁸ MOH, *Report* (for 1907).

its 20s, but the number of cases on the books had gone up, as suggested in table 13:

Table 13: Statistics relating to the three restaurants for nursing mothers.

	Temple Lane	Maxwelltown	Blackscroft
Average attendance	24	28	20
Number on books	250	239	147

Source: MOH, *Report* (for 1909).

Although the average attendance at the restaurants was low, what was significant was the number of people on the books as home visits were extended to them. However, this poor turn out at the restaurants suggests that despite the best intentions of the DSU and the MOH, working women were still reluctant to attend organised child-care programmes, preferring instead to rely on neighbourhood and family networks of care and advice.

Maternal and Child Welfare Scheme

The house visitations, restaurant and milk depot, were all subsumed under the city's newly formalised Maternal and Child Welfare Scheme which came into operation in 1919. This had three components:

1. Ante-natal care;
2. Maternity Service;
3. Infant and Child Welfare.⁷⁹

The restaurant, house visitations and milk depot all constituted the infant and child welfare strand of the scheme. The Maternity Service strand however, was a means of highlighting the birth itself.

In Dundee, many births were attended by what was termed a 'handywoman', a woman with no special qualifications or training in midwifery, and normally an older woman of local reputation in birthing. Along the lines of the of the Midwives Act in England (1902), the Maternity Service began to reprimand these women, slowly replacing their knowledge with 'official' medical knowledge, and a system of regulation which required a trained and regulated midwife to be present at all births. As Ehreulich and English have considered, childbirth was increasingly understood as a medical condition, with local knowledges slowly eroded through a system of regulation, undermining advice networks that existed amongst women.⁸⁰

In her recent writings on pregnant bodies in public spaces, Robyn Longhurst deconstructs the term 'confinement' which was so commonly used to refer to birth. The term is overtly spatial and Longhurst demonstrates how, for pregnant women, confinement begins long before the birth itself. Pregnant bodies are constructed as 'out of place' in the public realm - irrational in a rational world. She suggests that when women do not obey the unwritten laws of pregnancy, as many did not in Dundee, they are made visible and problematised.⁸¹

The third section of Dundee's Maternal and Child Welfare Scheme reflects this wider idea of confinement and highlights ante-natal (or prenatal) influences on infant mortality. Ante-natal concerns were underlined in Dundee where a large number of women worked until within a short period of birth. In the BA's

⁷⁹ MOH, *Report* (for 1919).

⁸⁰ Ehreulich and English, *Witches, nurses and midwives*.

⁸¹ Longhurst, *Bodies*.

eugenically orientated 1912 report on infant mortality in Dundee, ante-natal and post-natal care were prioritised:

[The reasons] are both ante- and post- natal, thus it behoves us to remember that the care of the unborn is just as important as that of the newborn, and on no account must we devote ourselves to the child after birth and ignore its condition before.⁸²

Ante-natal disregard in the form of alcoholism, industrial employment of women and parental unfitness were seen to be the cause of a large numbers of deaths. In particular, it was believed that mothers employed in the factory during the period of pregnancy caused their child to be born unfit.⁸³ The city's health report in 1917 recorded 177 stillbirths, 176 deaths in the first month after birth, and approximated that there had been 700 abortions. Such statistics demonstrated the need for the supervision of pregnant bodies, and especially working pregnant bodies.

In 1920, Dundee opened its first ante-natal clinic at which pregnant women were examined, their personal hygiene regulated, minor complications treated, and 'proper' arrangements made for their 'confinement'. The clinic was symptomatic of the new identity of the 'foetus' and the changing relationship between the womb and society. Many feminists have written of the pregnant body as a public body. As Young remarks: "Pregnancy does not belong to the woman herself. It is a state of the developing foetus, for which the woman is a container".⁸⁴ This echoes Oakley's notion of the "Captured Womb", where she remarks,

⁸² J. Rogers, "Care of Children" in Paton and Miller, *Handbook and guide*, 54-63.

⁸³ MOH, *Report* (for 1924).

⁸⁴ I. Young, *Throwing like a girl and other essays in feminist philosophy and social theory* (Indianapolis: Indiana University Press, 1990) 161.

the womb - whether already pregnant or not - [is a] container to be captured by the ideologies and practices of those who, to put it most simply, do not believe that women are able to take care of themselves⁸⁵

The womb was constructed as a social or public space, and the pregnant woman was ushered into new discursive and material “prenatal” spaces,⁸⁶ as the antenatal strand of Dundee’s Maternal and Child Welfare Scheme demonstrates.

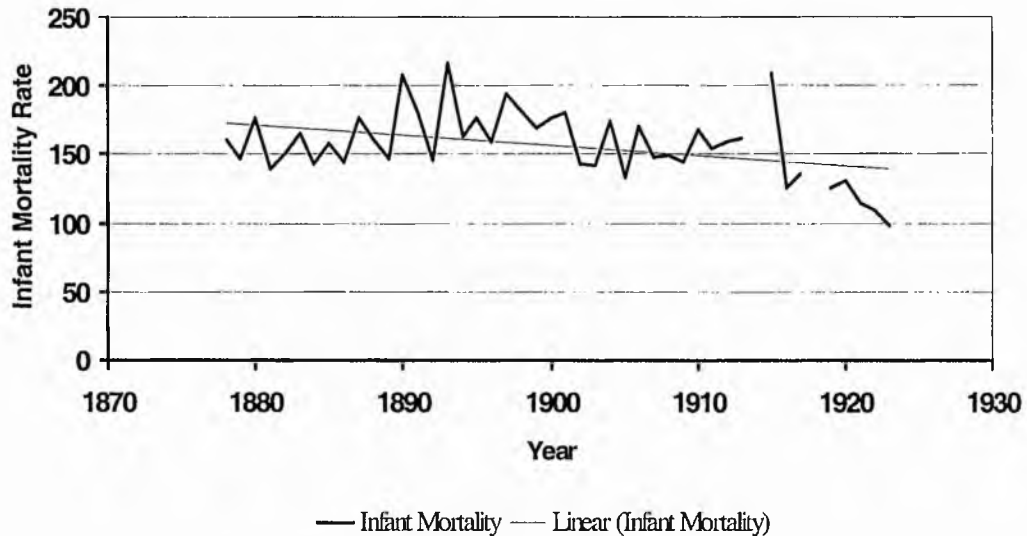
Conclusions

What happened to Dundee’s IMR between 1878 and 1931? As Figure 5 demonstrates, although the IMR fluctuated from year to year, (with some years, for example 1915, showing a steep rise when an outbreak of whooping cough and measles caused the IMR to increase to 215), it did display an overall downward trend. As Foucault (1979) suggests: “power...exerts a positive influence on life, that endeavours to administer, optimise, and multiply it, subjecting it to precise controls and comprehensive regulations.”⁸⁷ Power is productive; it makes things visible and achieves certain outcomes. In Dundee, the programme of reform established to reduce the IMR did have a positive effect in reducing the number of infant deaths.

⁸⁵ A. Oakley, *The captured womb: a history of the medical care of pregnant women* (Oxford: Basil Blackwell, 1984) 292.

⁸⁶ See N. Stormer, “Prenatal space”, *Signs: A Journal of Women in Culture and Society*, 26 (2000) 109-144.

Figure 5: Infant Mortality Rate in Dundee 1878-1923



Source: MOH, *Reports* (for 1878-1931).

However, it is important to suggest that this process of “constant medical supervision” worked through a specific nexus of power-knowledge which had implications for working women and understandings of her ‘reproducing’ body. Supervision was partial and fragmentary, and indicative of class boundaries. It converged upon the working woman, labelling her as problematic, and, at times, as irresponsible. Supervision was also temporal; it mapped the periods before, during and after birth, and ensured their constant and ever closer scrutiny. And this temporal surveillance was manifested in various *sites* of reform that circumscribed working women’s geographies and determined where they were ‘in place’ and ‘out of place’. These effects demonstrate how “constant medical supervision” was productive, producing a whole array of knowledges that interrogated working women, positioned them in relation to their reproductive capacities, and highlighted the use and misuse of their bodies.

⁸⁷ Foucault, *History of sexuality*, I, 13

Conclusion

Bringing this thesis to a conclusion is, in some respects, a difficult task. In many ways, the chapters can be read as independent pieces of research that carry their own sets of ideas and stories based on specific and seemingly disparate archival sources, and which revolve around the construction, representation and counteraction of different geographies and spaces. Furthermore, this thesis does not claim to offer a full and definitive account of Dundee, its jute industry and working women. However, taken together, the chapters bring together ideas of gender, space, power and knowledge in an account that provides insight into how the identity of the women who worked in Dundee's jute industry was constructed, challenged, and appropriated at the turn of the twentieth century.

Rather than provide a summary of these different chapters, I want to end by drawing out a number of ideas that have run through this thesis as a whole. Primarily, this conclusion will consider the discursive approach I have taken. I want to reflect upon the richness of such an approach and demonstrate that it is a critical means by which a wide range of sources can be brought together and examined in new ways. In this thesis, I have drawn upon a seemingly disparate set of public and formal texts such as company accounts, MOH reports and contemporary journals, as well as private and unofficial texts such as mill managers' notebooks, company letters and private correspondence. I have attempted to show how these sources are both interconnected and implicated in material relationships of power.

But, more specifically, I want to use this conclusion to reflect upon a discursive approach and its implications on five particular areas. Firstly, the geographical dimensions of my work and, in particular, the spatiality of the range of discourses to which I refer, and the regimes of power-knowledge that they produce. Here I will emphasise the material, textual and archival spaces that have been so integral to the history I have written. Following on from this, I want to deliberate upon the time period, 1870-1930, within which this thesis has been framed. I want to explore the dynamics of this period and stress how the material conditions and discursive regimes within which women were placed did change across this sixty-year period. Furthermore, I want to signal how this thesis and the approach it takes, contributes to the wider project of writing 'women's history'. Thirdly, I wish to discuss the relationship *between* the various discourses that I have discussed and probe their complementarities and apparent contradictions. Here, I focus on the seemingly contradictory economic discourses which prescribed women as an essential component of the jute industry's workforce and the reformist discourses which worked through middle-class notions of femininity which prescribed women's place in the home. Here I want to indicate how this reformist discourse worked through the particular industrial conditions of the city. But here, I also want to highlight the ways in which women themselves worked through these economic and reformist discourses by, in some instances, actively contributing to them, whilst at other times, challenging and resisting them. Throughout the thesis, in my use of a discursive approach and interrogation of power/knowledge, I have drawn on the work of Michel Foucault. However, I have been careful not to simply import his ideas and 'apply' them to the context of Dundee and its working women. Rather, I have worked with and, at different

points, extended Foucault's writings. I wish, therefore, to reflect on the theoretical position(s) that I have adopted and adapted, and articulate more clearly how I have both used and extended the ideas of Michel Foucault through the range of archives I have examined. Fifth and finally, emphasising that this thesis is only a partial account of Dundee's history, I will provide a brief discussion of the ways in which this work could be taken further - the areas of discussion that have been omitted and the other stories that could have been written.

To reflect on the geographical dimensions of my work, I want to return to the quote from Foucault, in which he explains the notion of discourse, and with which I started this thesis. In Foucault's terms, I have been interested in the fact that working women were spoken about, and have sought "to discover who did the speaking, the *positions* and *viewpoints* from which they spoke, the *institutions* which prompted people to speak about them and which *stored* and *distributed* the things that were said". I emphasise certain words in this statement as, I believe, they render a discursive approach a peculiarly geographical endeavour. These words have geographical implications and Foucault's statement, taken as a whole, alludes to a range of different spaces - physical, conceptual and archival - through which working women were made known and about which I now want to say more.

First and foremost, this thesis has worked through a number of different physical sites, the principle of which has been the city's jute mills and factories, its streets, housing and working bodies. Through a detailed exploration of these various

spaces and the ways in which working women were understood in relation to them, I hope to have achieved what can be read as a 'topography' of the women who worked in Dundee's jute industry.

To further highlight the overtly geographical, the thesis works through a number of scales. Despite its local emphasis on a particular city and industry, I have tried to emphasise at every point how the local lives and geographies of Dundonians spread beyond the workplace, home and city, and were incorporated into wider geographies of nation and empire. Indeed, the local details of this project do not make full sense unless they are studied in relation to national and global agendas. From, for example, the minutiae of movement of working women's bodies in the jute works to directors' spaces that extended across an empire (chapter 3), and from the scrutiny of infant feeding habits to the need to replenish the empire with a growing, healthy and strong population (chapter 7), I have tried to show that a geographical history of Dundee cannot be written without reference to a wide range of geographies stretched out across a number of different scales.

Through these sites and across these scales, I have demonstrated the very processes and geographies through which gendered identities are constructed. However, although the main category and identity I have been interested in is that of working women, this thesis makes reference to a whole range of gendered identities, with each chapter placing working women in relation to other urban actors. Chapter 1 explores the masculinist discourses of Dundee's journalists and jute company directors - discourses that generated a specific set of gendered images and understandings of the city. Chapters 2 and 3 focus upon the hierarchy

of the workplace, with women defined in relation to foremen, managers and directors. Chapter 4 introduces the men who headed Dundee's trade unions, and how working women were placed in relation to their projects of resistance. How women became the object of a male - workplace and philanthropic - gaze is the concern of Chapter 5. Whilst Chapter 6 emphasizes the role of the male academics of UCD who initiated the DSU and the middle-class women who were engaged in the day-to-day running of its investigations, and its tenements and activities programmes. Finally, chapter 7 focuses on the city's MOH and the 'Lady Health Visitors' who tracked the IMR, and the health workers who were engaged in running the Maternal and Child Welfare Scheme.

It was these other urban actors who did the speaking about working women. However, they did not all speak from the same positions or express the same views. Indeed, a crucial part of the research process has been to assess these positions and explore the locations through which they were fostered. Assessing this 'geography of knowledge production', I suggest, is a crucial part of the research project. I alluded to this most strongly in chapter 6 in exploring the production of philanthropic knowledge in the city. The DSU, formed by the academics of UCD and emanating from its learned corridors, was, because of its institutional links, widely considered to be rigorous and scientific in its project of urban reform. As such, the knowledge that the DSU produced on Dundee, its living and industrial conditions, and, in particular, its working women, was highly regarded and accepted both within and beyond the city. However, beyond the DSU, this thesis has examined a range of geographies of knowledge. For example, chapter 3 made reference to directors' spaces from which the workplace

was surveyed and economic decisions made – spaces which were often physically detached from and, inaccessible to, their objects of knowledge. Furthermore, chapter 7 showed how local knowledges and practices of pregnancy, birth and childcare amongst working women were discredited through a range of strategies implemented by the city's MOH.

By emphasizing the sources I have used in this thesis, I have shown how each physical site was made known through a range of textual spaces. However, what I have also tried to highlight is how these textual spaces themselves had a geography. And it is by exploring this geography – of positions, locations and distributions – that we can glimpse how knowledges of working women were produced and legitimated. Although in some texts, working women were excluded and hidden, whilst in others, they were the central subjects and exposed in detail, by traversing a range of textual spaces and placing them next to one other, we can begin to understand and account for the ways in which the women who worked in Dundee's mills and factories were made known. This process, therefore, also requires a reflection on the space of the archive itself and a recognition of what and whose knowledges are stored and what and whose knowledges are omitted.

Foucault's words on the discursive approach therefore make the archival process a wary one. Thinking through these various geographies of the records and recognising the inclusions and exclusions of the archive space more generally, makes us sensitive to those other spaces and stories which have been hidden or denigrated. Although these other spaces too often and regrettably remain hidden,

making a more fulsome feminist historical narrative difficult, a recognition that there are gaps and other knowledges can be a partial response.

In tracing these different geographies of working women, I have drawn upon a variety of literatures pertaining to the broad range of themes pursued - literatures that explore questions of landscape, the workplace, resistance, philanthropy, the body, and so forth; and literatures that cross different disciplines, including management, art history and anthropology. I have tried to show how these literatures can be taken in new geographical directions through the context of Dundee. However, as John Allen has suggested, to think geographically, “actually requires more than ‘adding on’ space and place to an economic or cultural study. Thinking geographically can alter the way in which we understand events and issues.”¹ For me, this difference was brought home at a women’s history conference in December 2001 where I presented a version of chapter 4 of this thesis. I have always felt something of an impostor when presenting my ‘geographical’ work to historians. However, my paper was well received, with several delegates enquiring further about the specifically geographical ideas with which I was working and I left with the sense that thinking geographically about Dundee and working women is an important undertaking that can recast the way we see history. I hope this final thesis reflects more than an ‘adding on’ of space and gets to grips with the various processes of actually *thinking* geographically.

It is these very broad concerns of the geographer that sets this work apart from other histories of working women. In Dundee, there is now a sense of pride in

¹ J. Allen, “Afterword: open geographies”, in D. Massey, J. Allen and P. Sarre *Human geography today*, 323-328, 324.

the fact that the city was a 'woman's town'. Indeed, scholars of Dundee and its jute industry have rightly placed working women at or near the centre of their studies. In my view, however, they have not fully explored how 'working women' were *placed* in Dundee and its jute works. Instead, the category 'working women' and the figure of the 'working woman' are usually reckoned to be self-evident - the use of such terms is not deemed to require any explanation. Rather than talking and writing about working women as a given category, I have probed the processes through which the identity and category of working women have been constructed and contested, and the processes of self-identity. This critical analysis of discourse and its implicit geographies can shed new light on the construction of working women. And it is here that I feel my work fits into the feminist trajectory. Such a line of inquiry does not amount to an attempt to set the meaning of 'working women' or the 'working woman' in stone but, rather, to show how such categories were constructed and negotiated by a range of actors, institutions and organisations, and elaborated in and through a range of geographies. At a more general level, the thesis contributes to attempts to dislodge women from their marginal place in the writing of both popular and more scholarly Scottish histories and historical geographies of the industrial revolution. As such, it contributes to the recent and ongoing attempts of 'Gendering Scottish History' which has been led, amongst others, by members of the Scottish Women's History Network.²

In taking a discursive approach, I reject previous essentialist arguments about the category 'woman'. Furthermore, to suggest, as this thesis does, that there were

² See T. Brotherstone, D. Simonton and O. Walsh (eds.), *Gendering Scottish history: an international approach* (Glasgow: Cruithne Press, 1999).

discourses on working women rejects any fixed or all-embracing notion of discourse. This brings me on to the second area of consideration of this conclusion – the dynamics of the period, 1870-1930, under discussion, and the changing material and discursive conditions within which working women were placed.

Dundee's position as Britain's premier jute manufacturer - 'Juteopolis' - had been confirmed by 1870, and the prominent place it gave to women in its workforce was to continue over the following sixty years. But, I suggest, by the close of 1930, working women and the figure of the 'working woman' had been more clearly articulated by a range of urban actors, institutions and organisations and the details of her life increasingly explored and corrected. Although the temporal markers of this thesis are somewhat arbitrary, by tracing the urban-industrial dynamics of the period that they cover, I want to emphasize that this was not a static time but, on the contrary, one in which living and working conditions for Dundee's working women did change.

To do this, I want to reflect on Foucault's notion of power as a productive force – a force which makes things visible and achieves certain outcomes. I have shown how, in some instances, power produced compliant workers and trade union members, improved housing and living conditions, and good mothers and a reduced IMR. Here I want to reflect on how the relations of power/knowledge and the discourses that they produced and worked through changed the conditions within which women lived and worked in Dundee throughout the period 1870-1930.

Focusing on the jute mills and factories, I have explored the economic discourses of production and efficiency through which women were prescribed as an essential workforce; discourses which, translated into rules and regulations, affecting the very conditions within which women worked – conditions of horizontal and vertical segregation, low pay, workplace accidents, and supervision. However, from the multi-storey buildings to the shed system, and from direct supervision to the emergence of workplace accounting, these conditions did change. Furthermore, reformist discourses – both state and philanthropic – increasingly scrutinised and monitored these conditions, bringing working women and the workplace increasingly under the realm of the law.

Reformist discourses form the later concerns of this thesis, a position which, in some respects, reflects their temporal appearance. The establishment of UCD in the early 1880s provided a platform from which the project of urban reform could develop in Dundee. Working through particular understandings of women and home, the DSU sought to improve the city's housing conditions and its working class residents. The discourses of reform through which it worked took shape through various practices of reform including house visitations to assess living conditions, the provision of housing for the working class tenants and activities for workers. From the DSU's inception to the end of the period under discussion, the living conditions of working women had improved. Housing had been put on the agenda of the city's sanitary inspector who instigated his own programme of house visitations and slum clearance, and working women were given more opportunities and learned more skills through DSU sponsored trips and classes. In particular, as unemployment amongst the city's working classes rose towards the

end of the period, the provision of recreational activities and classes took on particular urgency.

However, it is perhaps in relation to health and, specifically, to the city's IMR, that the DSU led the project of reform in Dundee. Tied to wider discourses of empire-building, the DSU established a number of restaurants for nursing mothers. Later adopted by the city's MOH these restaurants were to form just one part of Dundee's Maternal and Child Welfare Scheme which saw a reduction in the city's high rate of infant deaths and an improvement in the health of mothers.

Power is therefore not a negative force – repressing and subjugating – but a productive set of relations through which outcomes, and often material improvements, can be achieved. And, by the end of the period under discussion, many of the conditions under which women worked and lived in Dundee had improved. However, this productive and often positive force, worked through a specific nexus of power-knowledge which produced specific understandings of working women. What I have attempted to show here is that, from 1870 to 1930, working women were ever more closely scrutinised by a range of different urban actors, organisations and institutions, prescribing them a particular identity and setting out the norms of their behaviour.

I suggest in the introduction to this thesis that, by adopting a discursive approach, I am not prescribing one overarching discourse in which working women were caught. Rather, there were a “multiplicity of discourses produced by a whole series of mechanisms operating in different institutions”. As such, this thesis

suggests that working women were defined through a web of discourses which served a range of different forces and purposes. Economic discourses perpetuated the processes of capital accumulation whilst more reformist and liberal discourses propagated the cause of urban exploration and empire-building. In many respects, these concerns appear contradictory and can even be considered to be in conflict. Here, moving on to my third point, I want to take a closer look at the relationship between these economic and reformist discourses and how they were adapted to the local conditions in Dundee.

In Dundee, the project of philanthropy and urban reform was forged around the city's peculiar industrial conditions. The DSU was no exception and, as I have shown, it worked through, rather than against, the economic discourses through which women were prescribed as an essential workforce. As it recognised in its 1905 report, Dundee would "sink to the level of a small burgh" without the women who worked in its jute mills and factories. It therefore did not apportion blame for the large numbers of women who worked but, instead, implemented a programme of self-improvement and well-being to 'improve' the lives of those women who had to work. Indeed, the DSU remarked that, due to these industrial conditions, "[n]o other community, has a more vital interest in everything pertaining to the welfare of women".

The DSU, admitting they were 'helpless' in changing the economic circumstances of the city which reduced women to workers, instead adapted to them. Whether in changing the times of rent collections or scrutinising living habits and their relationship to the occupation of the mother, the DSU was

committed to a project of improving working women's lives. Furthermore, through donation and subscription, the DSU was aimed at Dundee's civic elite which largely comprised the owners of the jute industry and many who were both directly and indirectly tied to it. The DSU, therefore, was not aimed at preventing women from working or criticising the jute industry's management for employing women but, rather, at implementing a range of techniques aimed at improving the conditions of their existence.

Although these official discourses worked closely with one another, women were not trapped by them. Rather, working women both worked out of these discourses and created their own discourses. At various points throughout this thesis, I have attempted to demonstrate this. For example, in chapter 3, the use of oral histories and autobiographies allows us to glean how women adapted to workplace conditions and forged strong relationships with foremen. Furthermore, in chapters 6 and 7, I suggest that many working women chose to attend the classes of the DSU and the various schemes of the MOH's Maternal and Child Welfare programme.

It is in chapter 4 though, that we get the strongest sense of these other discourses that women created and participated in. Whether through joining the trade unions' programme of protest, forging their own 'hidden spaces', or making work a place of enjoyment and inscribing it with their own meaning, working women were able to detract from the economic trajectory of the mill and factory.

Although this thesis is able to offer some sense of women's negotiations of official discourses and the creation of their own discourse, it has been difficult throughout the research process to find and represent women's knowledges. As mentioned earlier, the archival site is a restricted one, representing only selective knowledges. Indeed, despite an acknowledgement that "where there is power, there is resistance", it has been a frustration of the research process that resistance and negotiation, in their various forms, largely remain invisible.

These ideas of resistance and of other discourses bring me onto my fourth area of reflection – my approach to theory. Throughout this thesis, I have attempted to take a cautious approach to theory. Rather than importing Foucault's ideas, wholesale, to the Dundee situation, I use his ideas in a flexible way – to offer openings. However, I have used Foucault's ideas and notion of power in a range of different ways and here I wish to discuss these. I also want to emphasise how I have 'gone beyond' Foucault's own writings – taking his ideas not only into new places and spaces, such as the mills and factories, the project of urban reform, and the programme to reduce infant deaths, but also extending them to provide insight into the construction of gendered identities.

Whether in drawing upon ideas of disciplinary power (as discussed by Foucault in *Discipline and Punish*) or biopower (sketched in his *History of Sexuality, Vol. 1*), this thesis has tracked the momentum of power and the production of knowledge and discursive regimes in different ways at various points of the thesis, and each chapter shows how working women were implicated in power relations which were site-specific.

In chapters 2 and 3, I draw closely on ideas taken from *Discipline and Punish*, and Foucault's use of Bentham's panopticon. However, I extend this work and the work of those who have already drawn upon the panopticon concept in the study of various institutional forms to explore the mills and factories of the late nineteenth century, and the power relations and spatial dynamics through which the mass of workers was turned into a disciplined and productive workforce. In particular, by examining the various disciplinary technologies used in the mills and factories, I show how women's movements, communications and knowledges were restricted.

However, in contrast to Foucault's focus on the official discourses and the "constant disciplinary gaze" through which the prisoner was prescribed in *Discipline and Punish*, I have sought to go beyond the official spaces of discipline, control and order, to examine the practices and processes of resistance in the mills and factories. By demonstrating how the trade union movement implemented its own programme of disciplinary power aimed at increasing union membership and how women adapted to the material conditions of their workspace and, through it, opened up their own spaces of resistance, I have extended Foucault's notion of disciplinary power as a dominating force.

However, besides these understandings of power as either dominating or resisting, in chapter 5, I demonstrate how the identities of working women – as either a weaver or millgirl – were appropriated and 'performed' by the women themselves. Extending Butler's notion of performativity which, itself, is an extension of Foucault's ideas of disciplinary power, I have demonstrated the

ways in which, in Dundee, some women actively reproduced the identities through which they were prescribed as 'problematic' by taking on and acting out the roles of the weaver and millgirl.

In chapter 6, I again extend Foucault's notion of power by suggesting that working women actively participated in the project of reform that the DSU was implementing. Indeed, at several points in this thesis, I suggest that women embraced aspects of this disciplinary project - both within the workplace, by forging strong relationships with foremen, and outside, by participating in DSU activities. In doing so, working women were implicated in their own subordination and practices of knowledge accumulation.

Through this multitude of processes and technologies of power, I have suggested that by the beginning of the twentieth century, working women's lives had come under close scrutiny. Women who worked in Dundee's jute industry were made known and visible through a matrix of disciplinary power which worked in various ways and which constructed a discursive web through which women were understood. This thesis explores only part of this web and, as I stressed in the introduction, provides only a partial and selective account of Dundee's history. I have missed out certain episodes of Dundee's history, including an examination of its political and religious life. Indeed, the research process has been one of choosing what to, and, what not to, include. Here, I want to briefly discuss two areas of historical study that do not feature in this thesis and suggest how they could be understood using the approach I have adopted in this work.

The first area is that of the temperance movement. The temperance movement was particularly strong in Dundee and, through its political and religious influence, it targeted and recruited many of Dundee's working women to its cause. Foucauldian ideas of power and surveillance could fruitfully be extended to explore the temperance ideals of self-control, improvement and denial, and the many spatial practices they engendered throughout the city. Temperance ideals penetrated a range of educational and philanthropic institutions as well as religious and political life more generally. The latter is particularly pertinent as it was in Dundee that Britain's first and only Prohibition Party MP, Edwin Scrymgeour, was elected, defeating the incumbent Winston Churchill in the 1922 election.

The temperance movement in Dundee was a supporter of women's suffrage and it was after women were given the vote that Edwin Scrymgeour was finally elected. Many of themes that I have developed in relation to Dundee's working women could be implemented in relation to the city's suffragettes. For a short period of time prior to the First World War, the suffragettes used a variety of means, both peaceful and violent, to draw attention to their cause.³ Further investigation into Dundee's history could explore how this other and often perceived 'problematic' group of women were understood and represented. Furthermore, it would be interesting to explore the relationship between the middle-class led suffragette movement and the city's working women.

³ L. Leneman, *Martyrs in our midst: Dundee, Perth and the forcible feeding of suffragettes* (Dundee: Abertay Historical Society, 1993).

As I conclude this thesis, I am more acutely aware than ever of the limitations and parameters of this study - the time constraints, the limits of the archives and of my archival research, and the uncertainty of the research journey. However, what I hope this thesis does is underline the usefulness of the concept of discourse, and more precisely, the spatiality of discourse and the geographies of knowledge production for the historical analysis of working women in Dundee and beyond. Work on the spatiality of discourse and a recognition of the range of discourses is crucial in allowing us to theorize about women, whether workers or not, in new ways, and for extending the writing of feminist historical geographies.

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Abbreviations

BA	British Association for the Advancement of Science
DCA	Dundee City Archives
DDJFWU	Dundee and District Jute and Flax Workers Union
DDMFOU	Dundee and District Mill and Factory Operatives Union
DDSMA	Dundee and District Spinners and Manufacturers Association
DOHP	Dundee Oral History Project
DSU	Dundee Social Union
DUA	Dundee University Archives
DYB	Dundee Year Book
LC	Lamb Collection
LSD	Local Studies Department of Dundee Central Library
MOH	Medical Officer of Health
n.d.	no date
n.p.	no pagination
RCAHMS	Royal Commission on the Ancient and Historical Monuments of Scotland
StAUA	St Andrews University Archives
UCD	University College Dundee

PRIMARY

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Buist Spinning Company Ltd. MS71, DUA
Caird (Dundee) Ltd MS60, DUA
Cox Brothers MS66/II, DUA
D'Arcy Thompson Collection MS14722, StAUA
DDJFWU GD/JF, DCA
DDSMA MS84, DUA
Don Brothers, Buist & Co. Ltd. MS100, DUA
DSU GD/DC/LG, DCA
J & A D Grimond MS66/IV, DUA
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