THE DEVELOPMENT OF RELATIONS OF PRODUCTION
IN THE BRITISH COLUMBIA SALMON FISHERY

by

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Of course, these remarks notwithstanding, whatever faults may be found to exist with the thesis are totally the responsibility of the author.
Abstract

The thesis investigates the emergence of capitalist relations of production in the British Columbia salmon fishery, and compares this experience to those relations of production which developed in the British textile and United States steel industries.

The development of the wage employee relations of production in the British textile industry, of the late 18th and early 19th centuries, was found to be a resolution to the problem capitalists' experienced in attempting to gain control of production in what was known as the 'putting out' system. The adoption of the wage employee system was facilitated by the invention and introduction of technology appropriate to allow production to be centralized in factories. This meant that production could now be carried out by a class of wage labourers, possessing minimal skills, their tasks fractured into technical divisions of labour, and their production and time under the control of the mill owners.

In the U.S. steel industry production was originally under the control and authority of skilled workers who contracted their labour, as a production unit, to the steel mill owners. This system was characterized as a co-operative endeavour where labour and capital were equal partners. In the last decade of the 19th century the availability of technological improvements to the steel making process allowed mill owners to smash these relations of production. In their place were created a highly stratified division
of labour in which formerly skilled processes were deskilled, artificial job ladders were created to differentiate and individualize workers, and a wage incentive scheme adopted. The effect was that workers were encouraged to think of their place in the process of production in individual and opportunistic terms. In both the textile and steel industries the change in the relations of production, to a system of wage labour, marked the success of the capitalist challenge for control of the process of production.

In the B.C. salmon fishery the relations of production developed in quite the opposite direction. From 1870, when salmon canning first became a commercial venture on the Fraser River, until approximately 1894, the relations of production were centered around wage labour. The thesis argues that this arrangement reflected the fact that the fishing labour force was made up almost totally of native indians, and that these people were not culturally attuned to competitive motivations to capture as many salmon as possible.

By the late 1880s the canning industry was becoming increasingly competitive. As well; a non-native labour force was becoming available, some members of which had taken up fishing. Some of these non-natives had acquired fishing licences which were independent from the canneries, but to whom they sold their fish on the basis of a piece-rate contract. A licence limitation program was instituted in 1889 which forced canneries to rely heavily upon this independent sector of the fishing workforce.
These factors were mainly responsible for creating the conditions under which relations of independent commodity production became adopted. When the licence limitation program was abandoned in 1892, and the supply of fishing labour burgeoned, canners found it to their advantage to allow the common property situation of the resource to effect its influence upon the motivation to catch salmon. With no restrictions on entry to 'the commons' to engage in the salmon harvest, the workers, in their competitive relationship with each other, were motivated to catch as many fish as possible. This in turn depressed the value of their production. The situation was one which has been characterized as 'The Great Law of Fishing - Fisheries that are unlimited become unprofitable'. Unlike the textile and steel industries, it was not the capitalist control of the relations of production which created the motivation to capture salmon. Instead it was a consequence of the resource being common to all who wished to participate in its exploitation.

The thesis goes on to explain the initiatives taken on the part of capital, in the consolidation of the processing sector in 1902. It was argued that as well as this being an effort to rationalize the efficiency of production at the processing level, it also was an attempt on capital's part to gain oligopsonistic control over price and supply of raw salmon.

The failure of capitalist interests to adopt stationary capture techniques has been argued to be primarily due to legislative prohibition, as well as due to the significant
practical competition provided by the well established mobile capture fleets of salmon gillnetters. However, this did not prevent canneries from utilizing stationary capture sources in the United States, when fishermen's strikes threatened their supplies of Fraser River salmon.
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Chapter 1

Theoretical Issues in the Development of Relations of Production

This thesis seeks to explore the emergence of the capitalist relations of production in the B.C. commercial salmon fishery, and analyze the reasons for what will be argued to be a very unique development. The discussion is limited to the historical period circa 1870 to 1905 and refers almost exclusively to the Fraser River and immediate Gulf of Georgia fishery. While the topic is fixed in this particular time frame, the intention is not to write a history of this period of the salmon fishery, nor to argue that the historical evidence should be interpreted in any particular way. The argument is embedded in history only because it is felt that the relations of production which now exist can be most clearly explained through an analysis of their original development. Similarly, the fact that the discussion centers mainly on the Fraser River reflects the predominant importance of this fishery at that time.

The study has both empirical and theoretical levels of inquiry. The empirical content of the study explores the economic and cultural rationale which first encouraged labour to be employed by a wage payment system, and then encouraged processors to adopt a system of payment by piece-rate. The fact that the relations of production took on an independent commodity form requires an explanation of how the processing sector sought to control their input supply and develop a powerful corporate structure. Finally, in the
light of this process of corporate concentration, and the availability of alternative salmon
capturing technology, the failure of stationary capture techniques to be adopted will also
be examined.

At the theoretical level the paper is concerned with an analysis of the relations un­
der which production occurs in the capitalist economic mode. In order to examine the
organization of labour, and its relations with capital in the fishing industry, the thesis
explores the historical development of the organization of labour in the British textile
industry of the late 18th and early 19th centuries; and in the United States steel indus­
tries around the turn of the 20th century. In experiencing the shift from producer to capi­
talist defined and controlled relations of production, these two industries are posed as
examples of a complex process in the development of the capitalist mode of production.
Their examination allows an identification of the forces which impelled capitalists to
adopt a wage labour system, and capital intensive, sophisticated, technology. The inten­
tion is to present a kind of 'conceptual model' of how capital seeks to subordinate the
strength and control of labour in the production process. Thus the thesis analyzes the de­
velopment of the relations of production in the capitalist organized salmon fishery, in
the context of the model of how, in general, the relations of production develop in capi­
talist industries.

This comparative presentation ultimately seeks to identify the conditions peculiar
to the fishing industry which preclude the necessity for capital to adopt the usual relations of production. In this regard it is argued that an understanding of the development of independent commodity production relations in the salmon fishery requires an explanation which includes the theoretical implications arising out of the resource's common property status.

This study is set in what may broadly be termed a 'neo-marxist' critical theory interpretation of the political economy of labour supply and the division of labour. Given Carchedi's (1975:15) definition that; "the production relations upon which the labour process rests are the relations between the producer and the means of production", what this inquiry is interested in identifying is the manner by which the producer is engaged in a labour process by, and for, the capitalist. It is from this 'engagement' which the capitalist is able to appropriate the surplus value of production. "Production relations upon which the labour process rests [becomes subordinate to the] production relations underlying the surplus value producing process" (Carchedi, 1975:15 - 16).

In the British textile industry and the United States steel industry it is argued that the central thrust of capital's intervention was to subordinate the production relations of the labour process to the production relations which allowed capitalists to appropriate the surplus value of production. The formal subordination of labour became a precondition which allowed the capitalist the power and control to subordinate the technical relations under which the process occurred. This meant the creation of a technical
division of labour; the splitting of the production process into a great number of different sections/tasks/functions. This was what Marx termed the 'real subordination of labour' (Carchedi, 1975:16), and it was this 'real subordination' which allowed capitalists total control of the labour process.

It is argued that the capitalist putter outers of the 18th century textile industry, and the capitalist steel mill owners of the 19th century, were motivated to introduce technology, and make production take place in a factory/wage labour system, primarily in order to gain control of production time, and the incentive to produce. In textile production under the guild/handicraft system, the producer had control of time, and the value placed upon the product. In the putting-out system the producer had only control of the time that was spent in production. The putter outer could, under suitable market and supply conditions, manipulate product price to affect the amount of time the producer had to work to attain a certain income. However, this system still enabled the producer to choose a level of income for which to work, after which point production would taper off. This phenomenon is known in economics as the 'backward bending supply curve' for labour. The change to the factory system of production ended this freedom for the producer, as Marglin (1978:15) points out.

"...the origin and success of the factory lay not in technological superiority, but in the substitution of the capitalist's for the worker's control of the work process and the quantity of output, in the change in the workman's choice from one of how much to work and produce, based on his relative preferences for leisure and goods, to one of whether or not to work
at all, which of course is hardly much of a choice."

In the experience of the United States steel industry, workers at one time were in total control of the production process. While differing from the type of control exercised by textile workers, which was much more individualized, the steel workers as a group determined every aspect of production. As in the textile industry, capital smashed the 'co-operative partnership' relations of production and implemented the type of control described by Marglin for the textile industry.

For the British Columbia salmon fishing industry, production has simply meant the capturing of the raw salmon resource which, until capture, has no individual private claimants. However, the nature of the definition of the common property status of the fishery requires clarification. A definitive explanation is given by Pearse (1979/80: 194).

"Common property rights exist in three general forms. Closest to the no property case is that of traditional unrestricted access, where anyone has an enforceable right to use the resource but, concommitantly, no power to exclude other potential users, at least within a particular jurisdiction."

"... The second general form of common property involves restricted access, meaning that access is limited to those holding explicit rights. The owners of these rights, which may be in the form of licences, heritable rights, or common law privileges based on residence or appurtenances to other property, collectively can claim the right to the specified resources and thereby have power to exclude others. But
the rights are co-equal and do not define or limit the amount of the resource that they entitle the individual holders." (emphasis added)

The status of the salmon fishery has vacillated between these two common property definitions. However, even under a restricted access fishery, once right of entry to harvest has been obtained, the resource is common for all entrants to attempt to capture. It is irrelevant therefore to look upon licencing access rights to fish as changing significantly the common property status of the resource. Licencing merely defines who may and may not engage in its capture. It does not, as Clement (1981:21) argues, transform the sea or its fish from common to private property.

Having established that the salmon fishery is, and in its capitalist exploitation stage, always has been a common property resource, a comment must be made as to the condition this encourages in its capture. In having a common property status the fishery resource is subject to a dynamic which Hardin (1977:20 f.f.) has called "the tragedy of the commons". The tragedy lies in the fact that, given more than one participant and the absence of allocative direction (made difficult by the fugacious nature of salmon), there will be remorseless competition to lay claim on the resource. Competition is remorseless and urgent because of the inability to establish claim to the resource prior to its capture. This was the basis to Michael Graham's (1943:155) 'Great Law of Fishing'; "Fisheries that are unlimited become unprofitable". The competition for the resource leads to its overexploitation and/or its over production of catch, which thus erodes
economic rents.

In a fishery where the social relations of production make the producer/fisherman independent from the fish processor/capitalist, the competition to capture the resource is between the producers themselves. Given unlimited entry of fishermen, competition to participate in capturing the resource will persist until the returns for the effort involved no longer attract participants.  

It is within this theoretical framework the thesis seeks to explain the relations of production which emerged in the B.C. salmon fishery. It is argued that the common property definition of the resource was a condition which held the opportunity for production/salmon catching to be competitively motivated. Capitalists chose to exploit this opportunity for competitive motivation by allowing independent commodity production relations to develop, after certain characteristics of the labour force evolved which were complimentary to this development. At the same time a piece-rate system of payment was adopted. Given these conditions, the competitive forces acting to erode resource rents came into effect, forcing down the prices fishermen received for their catch. Their response was the militant class action, resulting in strikes, which has become so characteristic of the salmon fishing industry.

The thesis continues in arguing that it was to these conditions, emanating out of independent commodity production relations, that capital responded in rationalizing
its processing structure and began constantly striving for oligopsonistic control of its raw salmon inputs. This was the final step in restructuring the production process of fishing from one of employee relations to independent commodity relations with salmon fishermen.

Thus it is argued that given a constant contradiction between the interests of capital and labour regarding the value of returns which should accrue to labour, the subordination of labour in the fishing industry occurs through a different process than is usual under capitalism. The thesis outlines how the use of technology and the creation of a technical division of labour accomplished the subordination of producers' relations with capital in the British textile and U.S. steel industries. The thesis then seeks to demonstrate how the subordination of fishermen/producers occurred in the British Columbia salmon industry, through the creation of their independent commodity production status in harvesting a resource of common property definition. It will thus be argued that while independent commodity production relations were a creation of capital, the subordinate economic position arising out of this relationship was a consequence of the common property status of the resource. In this regard the discussion is at least as relevant to the salmon fishery today as in the 1890s when these changes were taking place.
Footnotes

1. This time period thus restricts the analysis to the gillnet fishery. Purse seine fishing was prohibited until 1903 in B.C., and salmon trolling did not begin commercially until circa 1911.

2. Both Ralston (1965) and Stacey (1978) have written excellent historical accounts of aspects of the salmon fishery during this period, without which this analysis would have been much more difficult.

3. While government legislation for the northern district delayed the rate of which the relations of production developed in this fishery, it eventually followed the experience on the Fraser River.

4. In economic terms, this recognition would be at the point where average cost equals (or even might exceed) average revenue. In a fishery which required no capital investment by fishermen (where they might lease their boat and gear), this equation would be substituted by the fisherman's recognition of opportunity costs. In an unlimited access fishery, labour competition, and competition through increasing capital equipment investment, may well both occur. In limited entry fisheries the competitive drive is mitigated as long as there is ample quantity of the resource. Scarcity and increased market price combine to trigger more intensive competition, and this in turn triggers investment to facilitate faster and greater capturing capability. This investment increases average costs so that once again average costs and average revenues are near equal. This has been the most recent experience of the west coast salmon fishery after implementation of a licence limitation program in 1968.
Chapter 2

The Textile and Steel Industries

Two of the hallmarks of the development of capitalist production processes have been the drive for capture of the surplus value of production, and the drive for efficiency. To achieve these ends the process of production must, in some form, be controlled by capitalists. The level to which capitalists are successful in this control, and thus in achieving their ends, is in large part determined by the control they can exercise over their producers. In these capitalist relations of production the introduction of technology has very often enabled capitalists to command greater control of the production process, at the expense of a level of control formerly possessed by the producers.

This chapter examines how capitalists first secured for themselves an economic role between the stages of production and of marketing in the early development of the British textile industry. It goes on to examine how capitalists then secured control over the process of production in both the British textile industry and in the U.S. steel industry. The use of technology will be seen to have not just a technical function in allowing more efficient production, but also a social function in contributing to the increased subordination of labour to capital. The examination will also include the effect which political/legal/social repression of producers' militancy had upon the relations of production, and how technology was used by capitalists to support this technique
of subordination. Exploring further the techniques of subordination and control, cer-
tain aspects of the creation of a technical division of labour will be examined to dis-
cover the way in which workers' skills were fractured into separate component tasks
of the total production process. The intention of this examination of the textile and
steel industries is to suggest a theoretical pattern of development of capitalist rela-
tions of production against which the experience of the B.C. salmon fishing industry
can be compared.

In the seventy year period prior to the start of the 19th century, technological
innovations in the British textile industry were emerging. Although there is
evidence of a type of gig mill being prohibited in 1552 and a silk throwing machine
was patented in 1718, the significant developments in textile technology did not occur
until 1733. In this year the flying shuttle was invented which facilitated the weaving
of wider bolts of cloth which was previously restricted to the reach of an arm's length.
Originally intended for the woolen industry, it was immediately adopted by the cotton
weavers. In 1738 the first mechanical spinning machine was patented, and a cylindri-
cal carding machine was incorporated in its factory operation. A short time later, the
two machines constituted the first, though short-lived, cotton spinning mill.
Arkwright used this spinning machine as the prototype for his 'water frame' patented
in 1767, which was designed to overcome some of the shortcomings of the earlier spinning machine. By 1773, Arkwright was able to establish the first successful factory which produced, as a finished product, cotton cloth. By 1775 Arkwright had incorporated mechanical innovations in combing, roving, and twisting of cotton such that the "textile machinery had developed into a system, the interdependent parts of which were able to perform all the successive operations of the industry, save the last and most difficult, that of weaving." (Mantoux, 1961:226).

In 1765 a derivation of the spinning wheel was developed by Hargreaves, called the spinning jenny, which allowed one workman to spin several threads at once. It was an improvement suitable for home production, and by 1788 in excess of twenty thousand were in use and doing the work of six or eight spinners (Mantoux, 1961:218). Despite the fine textured thread which could be spun on the 'jenny', and its quite significant contribution to increased production, its future was short-lived, not more than forty years in wide-spread commercial use. Its usefulness to the emerging dominance of the capitalist mode of production was limited due to the spinning jenny's anti-theoretical social function. Quite simply, this function was the provision for production to remain in the producer's home under his own supervision and owning his own equipment.

By 1779 the mule jenny spinning machine was invented, incorporating features of both the spinning jenny and the water frame. Originally it was suitable for 'out-workers' to use at home or in their own shops, but by 1790 the use of metal rollers and wheels, and the introduction of an automated power device, directed the technology toward the
factory where three or four hundred spindles could be utilized.

In 1785 Cartwright developed his power loom which was to be the most significant chapter in the technological development of the textile industry and one which was consistent with the transition of production from home to factory. By 1792 a steam powered loom was in commercial use. By 1813 there were 100 such looms in use and over 100,000 by 1833 (Mantoux, 1961:244).

While cotton was the dominant textile of the 18th century, both because of government tariff protection and the centralized nature of the production centres, wool also experienced the technological innovations of cotton but at a slower rate. The limited capacity of wool fibre to take the strain of machine handling was partly responsible for this slower introduction of technology. However, wool fibre production was carried out in many small but scattered workshops around the country.

The workmen were protected by ancient guild associations and detailed apprenticeship restrictions, and of course were much closer to their source of raw material than was the case in the cotton industry. Cartwright's wool combing device was developed in 1790, but it was not in general use until 1825 - 1840. The gig mill, which had more or less been successfully excluded from the industry until this time, made its reappearance around the turn of the century, and was soon superceded by the shearing frame. The gig mill was always a threat to the highly skilled cropping trade, but the shearing frame compounded this threat by being able to carry out all the cropping tasks
not formerly able to be done on the gig mill.

These technological developments accompanied a profound alteration in the organization of production. At the beginning of the 18th century Mantoux's (1961:59) description of the weaver's place in the organization of production was characteristic of that for the rest of the textile industry.

"Thus the weaver, in the cottage which was both his dwelling-place and his workshop, controlled production, and did not depend on a capitalist since he owned not only the tools but the raw material. The woven fabric he sold himself in the market of the nearest town."

This type of production has been described as the "domestic system" by Thompson (1968:300) and Mantoux (1961:61) (who elaborated that it was "...the industry of the Middle Ages still almost unchanged on the threshold of the nineteenth century"), and the "handicraft-guild system" by Pollard (1965:30). The system was characterized by the producer controlling both his own production and the returns for that production from its sale in the marketplace.

However, with the changing conditions of the 18th century, both in the technology of production and in the increased demand for cloth, the commercial arrangements which came to be known as the 'putting out' system or the 'merchant' system took dominance over the domestic system. Mantoux (1961:62) again is useful in providing an insight on the emerging organisation of production.

"Domestic industry, as soon as its production becomes larger than local consumption can absorb, can only continue to exist on one condition: the manufacturer,
unable to dispose of his goods himself, must come to an arrangement with a trader, who buys them and undertakes to sell them again, either in the home market or abroad. This trader, this indispensible ally, holds in the hollow of his hand the fate of the industry itself. With him a new element comes into play, which very soon reacts on production. The merchant-clothier is a capitalist. Often he only acts as a middleman between the small producer on the one hand and the small shopkeeper on the other, and his capital, therefore, is still used for purely commercial purposes. Nevertheless, from the first it was customary to leave the merchant to take charge and meet the expenses of certain minor details of manufacture...."

"To do this he had to engage workmen, and he had one way or another to become an employer. This was the first stage in the gradual transformation of commercial capital to industrial capital."

Mantoux's explanation of the emergence of a trader merchant class implies a teleological argument, and thus requires somewhat further explanation. Certain conditions in the market, or in the establishment of markets, allowed opportunities for a trading-merchant function to operate. The local markets for cotton were protected by import embargos, and a flourishing export market for woolen cloth was developing. The technological advances in spinning at last allowed the output of yarn to keep up with, and eventually surpass, the capacity of weavers to turn it into cloth. Thus production and demand were both increasing rapidly.

Underlying all these factors contributing to the emergence of the putting out system was the recognition that profits were to be made in the marketing of textiles.
This was not an entirely new perception, at least on the part of the craftsmen. Unwin (quoted by Marglin, 1978:21) notes that in the sixteenth and seventeenth centuries;

"...the various crafts were, in fact, engaged in a constant struggle as to which of them could secure the economic advantage of standing between the rest of the market..."

"...by this interlacing of the interests of dealer and craftsman the way was gradually prepared for a new form of organization, embracing both classes, which naturally sought to extend its authority as widely over the manufacture as possible."

Thus, in time, as the textile trade intensified, a class of merchants/traders were encouraged to take upon themselves some of the organization of production. The organization revolved around taking a new or partially manufactured product, putting it out to craftsmen who applied their skills for a wage or fee, and finally marketing the finished product. The encouragement for the merchant trader to do this came in the form of the profit derived from the product’s final marketing. The rewards were significant. Mantoux (1961:238) notes that in the manufacture of muslin cloth, near the end of the 18th century, the value appreciation from its raw state to the finished, marketed product increased by one thousand to five thousand percent. The income appropriated by this merchant class ultimately enabled this class to introduce the next stage of textile production, the factory system.

Finally, Marglin (1978:40) describes the effect the changing relations of production had upon the political power of the producing class.
"Guild organization of production and distribution eventually gave way to the putting-out system for two reasons: it was more profitable to the class that was able to interpose itself between the producer and the market, and, equally important, profits provided the nascent capitalist class with the political power to breakdown the institutional arrangements of guild organization — strict rules of apprenticeship, strict association of production with marketing, and the like — and replace them with institutional arrangements favourable to the putting-out system; the free market in labour as well as commodities, buttressed by strict rules of industrial discipline, with harsh penalties for embezzlement and other infractions. Until the political power of the small master and journeyman was broken, the putting-out system could not flourish, for the division of labour that formed the essence of the putting-out system denied both the orderly progression of apprentice to master and the union of producer and merchant in the same person."

The erosion of the producer's political control of their own class will be seen to be a familiar tactic of capitalists to gain and hold control of production. The putting-out system did however hold one essential weakness as far as the interests of the merchant putter outers were concerned. They had very strong control over the rate and quality of production, as well as the 'honest' use of the raw material. During times when production exceeded demand the putting out system allowed an easy and immediate method by which production could be reduced. Work could simply not be put out, or wages/prices could be cut. The latter resolution usually had the effect of increasing production as the producers sought to retain their former level of income. This resulted in a stockpile of textile products, produced at a decreased cost, which was then put onto the market once demand revived.

However, the 18th and early 19th centuries were, over the long term, periods in
which demand for textile products was generally increasing. In this market situation the merchant putter outers had no means of encouraging any greater level of production out of the individual producers. If the producers were paid more per unit the production would drop, reflecting the fairly rigid income requirements and expectations of the textile workers. If they were paid less, as in the periods of excessive supply, the opportunities existed for the producer to work for competitor putter outers whose prices were more in line with the conditions of the market. Pollard (1965:33) encapsulates the system's weakness, from the merchant putter outers' point of view.

"With the growth in the size of firms the achievement of control over production, particularly its speed, regularity and quality, as well as the prevention of embezzlement, became well nigh impossible tasks within the framework of the putting-out systems."

The contradiction of interests intensified as technological innovations in the spinning of yarn allowed capitalists the option of centralizing production in factories. The factory system of centralizing production was not a new innovation. Near the beginning of the 18th century a silk throwing mill (factor) had opened at Derby (surreptitiously copied from Italian technological design and mill layout), employing wage labour. By the mid-century literally thousands were employed in silk throwing factories. Cotton spinning factories were being established by the mid-century, and by the 1770s spinning mills in which hand labour was employed to do the carding, and hand loom weaving, came into being. Pollard (1965:34) describes this transitional structural mix in the textile industry.
"The penultimate stage, in which we can see the factory in embryo growing within the putting-out organization, was the combination of a central mill or workshop for some processes, with a penumbra of semi-independent outworkers for others. This form becomes typical in the last third of the eighteenth century but is not limited to that period."

Thus the factory system was developing even as was the putting-out system.

The most significant social and technical changes in the textile industry's mode of production revolve around the development of the power loom. Immediately prior to the power loom's invention, and during its nascent years, weaving was a craft in great demand by putter-outers and capitalists. Weaving was the bottleneck between the greatly improved level of yarn production and the shortage of cloth in the face of strong market demand. It would thus seem odd that the power loom did not become responsible for most of the output of woven cloth until after the 1830's. The answer lies in the political power capitalists were able to command over the organization of production and their use of the power loom as one expression of that power.

As Marglin pointed out, the relations of production under the putting out system allowed capitalists the political power to erode the strength of the guild association and their apprenticeship restrictions. The restrictions on employment thus were slowly abolished first in the cotton industry in the latter half of the century, and in wool in the first third of the 19th century. Expansion of employment in weaving virtually exploded, aided by judicial decisions against tradesmen's attempts to maintain their traditional work and training practices. The enlarged labour supply meant conditions were much
more competitive between weavers, thus eroding their ability to resist wage cutting by capitalists. While it is clear that wages increased in weaving to a peak in about 1793, the process of wage cutting by powerful merchants and factory owners began at about the same time. The irony of the situation for weavers was that it was precisely the same influence which heightened their income and status which caused unapprenticed labour to "multiply so fast as to be one in the Gate of another" (Thompson, 1968:303, quoting 19th century dialect). By the second decade of the 19th century capitalists had been able to cut wages for hand loom weavers by half their previous rate, while there were still only some 100 power looms in operation throughout the country. For the hand loom weavers this period was one of class transformation from independent producers to wage workers, either in or outside the factory. The technological developments in the spinning and in the weaving industries allowed capitalists the opportunity to organize labour to serve the technology. To do this labour had to be transformed from independent commodity producers to wage labourers. The resulting power now available to capitalists through this competitive condition of the supply of labour temporarily preserved the old trade and technology. As Mantoux (1961:244) and Thompson (1968:309) respectively state;

"But the worse it became the grinding competition of machinery the more it delayed the universal use of new equipment, for wages sunk so low that it paid better to use men than machines."

"...the very cheapness and superfluity of hand-loom labour actually retarded mechanical invention and the application of capital in weaving."
In the woolen industry the technical innovations in the cropping trade, and later in wool combing, also assisted capitalists in smashing the producers' well developed political associations and their apprenticeship restrictions.

"The threat of the gig-mill was one element only in a general revulsion against the great employers who were breaking down working customs and disrupting a settled way of life." (Thompson, 1968:577)

Wool combers experienced total defeat in their strike of 1825 at the hands of capitalists who smashed their unity through the threatened introduction of wool combing technology, reprisals on their families employed in the spinning mills, and by opening up the trade to outside labour. (Thompson 1968:312). The artisan wool comber was immediately transformed into a wage worker or defenseless outworker. The threatened introduction of mechanical wool combers kept them impoverished for a further 20 years until the technology was finally introduced.

The state's support of capitalists was also important. Legal judgement or Parliamentary reform often was instrumental in breaking down traditional organized work and training structures and allowing labour to flood into the industry and cheapen the value of the production. The protective legislation, relating to training and technology in the woolen industry, was revoked in 1809 and thus threw open the industry to the introduction of the gig mill and the shearing frame. The use of this kind of technology precipitated the factory system utilizing unskilled and juvenile labour. (Thompson 1968:578).
When finally the factory system began to be predominant it was able to secure the control over production which even conditions of poverty and open competition could not effect in an out-working arrangement. The depression of wages and the breakdown of restrictions on the labour supply served capitalists' immediate economic interest, but the out-working arrangement of labour allowed the producer class far more independence and opportunity for radical and disruptive action than capitalists cared to accept. Thompson's (1968:571) description of the 'disorderly aristocracy' in wool cropping illustrates the conditions of class conscious expressions over which capitalists wished to gain control.

"The croppers thus controlled the finishing processes; and, like the woollenmilers, were in a strong position to organize and to keep out unskilled labour. They made up the aristocracy of the West Riding clothing-workers, and when fully employed, could earn in the first years of the nineteenth century up to 30s a week. They had a reputation for 'independent' or 'insubordinate' manners, political awareness, and rollicking relaxation."

The social relations of production in a factory system allowed capitalists to end the ambiguous interpretation of authority over production, which allowed 'undisciplined' actions by the producers. As quoted from Marglin (1978:15) in Chapter I, the evolution from the putting out system to the factory system meant, for the producer, the loss of the freedom to choose between production and leisure, production and agriculture, production and child rearing and so on. The factory system left the producer with the 'choice' of "...whether or not to work at all...". As a consequence of gaining this control over the social relations of production, capitalists' thus appropriated the ultimate authority over the determination of the technical division of
labour. With this authority, and a technology which abrogated the need for skill, it was not the skilled craftsman who made the transition from workshop to factory. It was largely women and children who provided the new workforce for minimal rates of pay. Under this arrangement control of production was very much the perogative of capital.

II

Stone's analysis of the changing relations of production in the U.S. steel industry in the 20 year period from 1890 to 1910 draws certain analogies with the experience of the British textile industry. After the American Civil War the steel industry began a period of rapid expansion. The organization of labour bore some resemblance to the putting out system, though the object itself was not 'put out'. Rather, a contract was 'put out' by the skilled workers to the steel company and payment was based on a set sliding scale of payment for each job, based on the weight of output. Unskilled helpers were hired by the skilled workers, and were either paid in full by the skilled craft sector, or their renumeration was shared by both the company and the skilled workers. The relationship was viewed as a "cooperative endeavour where labor and capital were equal partners". (Stone, 1974:117) Stone (1974:118) elaborates on the essential aspects of the relations under which steel was produced prior to the industry's complete reorganization at the turn of the century.
"The employers had relatively little control over the skilled workers' incomes. Nor could they use the wage as an incentive to insure them a desired level of output. Employers could only contract for a job. The price was determined by the market, and the division of labor, and the pace of work decided by the workers themselves. Thus, the sliding scale and the contract system defined the relationship between capital and labor in the nineteenth century."

As in the textile industry, conditions promoting a change in the relationship came in the form of greatly expanding markets, and the development of labour replacing technology. The amalgamation of the three strongest unions in the steel industry, in 1876, made the Amalgamated Association of Iron, Steel and Tin Workers the strongest union in its day, enabling it, in 1889, to win a contract at Carnegie's huge Homestead mill "that gave the skilled workers authority over every aspect of steel production there." (Stone, 1974:118) The strength of this authority precluded capitalists from replacing labour with new technology. To do this they had to smash these social relations of production - the 'cooperative partnership' between capital and labour.

Beginning in 1892 the capitalists in the steel industry began an outright assault on the union, locking out its members, hiring scabs, and employing the legal repression mechanisms of the state. By 1898 union membership was down to forty percent of the membership six years earlier. By 1910 the industry was completely non-unionized (Stone, 1974:121). Unlike the textile industry, technology was not in and of itself performing a 'behind the scenes', threatening, social function. Once the organized strength of the skilled craftsmen was broken by the companies' political action, the industry then began introducing capital intensive, labour replacing machinery which
required minimal skills to operate. As in textiles, the capitalists were now free to cut wages. Stone (1974:123) quotes David Brody's summary of the financial consequences of the workers' loss of control over production.

"In the two decades after 1880, the furnace worker's productivity tripled in exchange for an income rise of one-half; the steel workers output doubled in exchange for an income rise of one-fifth... At bottom, the remarkable cost reduction of American steel manufacture rested on those figures.

The accomplishment was possible only with a labor force powerless to oppose the decisions of the steel men."

Having lost control of the production process and thus no longer able to make income demands relative to the market value of production, the workers' productivity was further devalued by the extension of the work day from 8 to 12 hours.

The process of smashing the former relations under which production took place, and the organizational structures surrounding it, was a much swifter and unambiguous process than what was experienced in the textile industry. Where the textile industry utilized a putting out mode of production in conjunction with the introduction of labour replacing technology, the steel industry had first to break the organizational structures of the producing class before technology could be introduced and used to perform social as well as technical functions.

The major social function for which technology accounted in the U.S. steel industry was, of course, the classic function of deskill ing the producers. As in the textile industry, the technology that was introduced allowed workers to only participate in
one minimal, sectional part of the whole process, and made the actual process itself
repetitive and less reliant on the producer's skills and dexterity. The social function
that technology performs in the deskilling and sectioning off of production occurs today
in industries as diverse as hardrock nickel mining (Clement, 1980) and cooking (McPhee,
1979).

The steel industry was also alert to the inherent dangers which might reside in
the creation of a working class of deskilled producers who could draw common sup­
port for grievances. There was a latent organizing potential in a group of industrial
workers who, no longer able to have a craft to take pride in, and no longer having any
control of the production process, could develop a class awareness of their position
and take such class actions as union formation and/or striking. To arrest this potential,
employers' created highly structured job ladders covering every aspect of production,
and which received slight differences in pay. Also, attached to these essentially
artificial differentiations, were individual output incentives for production. This
created motivations for individual ambition to 'climb the ladder' of production tasks,
and, of course, created the incentive to increase individual production. Considering
how the production process had been deskilled and divided into small sectional tasks,
it was not inconsistent with this organization of production to graft onto it artificial
scales of value and individual incentive promotions.
Skill and production knowledge were relatively easy aspects over which capitalists could gain control and dominance. As in the textile industry, the destruction of the social relations of producer-controlled production eliminated the apprenticeship system by which new recruits were trained for the craft. Learning the craft by apprenticeship, the trainee started at the bottom and did all the tasks of the total process, in their order of difficulty, until the whole process could be skillfully accomplished. In its place, employers in the steel industry set up 'short courses' where recruits were trained for a very particular task by the worker performing it, without gaining any knowledge of the tasks preceding or following it, or how the task was done in another type of steel production. Thus;

"These workers had skills which were only good for one job. They did not have the independence of the 19th century skilled workman, whose skills were transferable to other jobs and other plants. Nor did they have the generalized knowledge of the production process that skilled workers previously possessed. The knowledge they had was that which could serve their employer, but not that which could serve themselves. Thus, the new skilled workers were a dependent class."

(Stone, 1974:145)

There is one other aspect of this history of the organization of labour in the U.S. steel industry which is of particular relevance. When unionism finally returned to the steel factories, in the form of a C.I.O. affiliated industrial union (as opposed to its former craft union heritage), one of the major grievances it had to immediately deal with was the issue of wage rates. Technology and job duties had changed significantly in the 30 years since the wage incentive scheme and job categories were established at the turn of the
Many of the jobs in the modern production process were of similar or identical nature, yet received greatly varying rates of pay. What was significant about the grievances, and which the union did not challenge, was that the dissatisfaction centered around perceived inequities between workers' jobs and their remuneration relative to each other. As Stone (1974:154) points out, the discontent did not focus on the value of their labour relative to the value of the product they manufactured.

"The divisive nature of the incentive plan lead workers to compare their earnings to that of other workers and to perceive their problems as one of inequity among themselves, rather than comparing their earnings to the actual value of what they produced, and perceiving their problem as one of inequity between themselves and their employers."

Thus the individualization of the relations of production distracted workers from recognizing that the real value of their labour was based upon the value of the product they produced.

This chapter has attempted to examine the process by which capitalists entered the British textile industry, and how they established control over the process of production in the U.S. steel industries. The change in the relations of production in the textile industry began with the growth and diversity of markets, and the technological innovations permitting increased production. A financial entrepreneurial class of traders/merchants were able to interpose themselves between the stages of production and marketing of the textile products. The functions of this entrepreneurial position, in putting out the raw material for production and taking back the finished product for marketing allowed the class to extract profits out of the transactions. The profits contributed to the financial capital for investment in factories.
It was argued that the putting out system was inadequate to allow this nascent class of capitalists the control of production time, quality or the honest use of materials. The putting out system was, in effect, the transitional period in which the producers' traditional control of production was challenged.

The contradiction of interests between capitalists and producers, centering around the control of production in response to market demand, found resolution in the invention and introduction of efficient mass production technology. The silk throwing machine, the water frame, the spinning jenny, the mule jenny, and the power loom were among the most significant pieces of technology designed to permit centralized production. The emergent factory structure left capitalists in total control, by virtue of their ownership of the means of production, and thus in turn enabled them to re-define the relations of production. The re-definition meant textile production now could be carried out by a class of wage labourers, possessing minimal skills, their tasks fractured into component processes by the capitalist imposition of a division of labour, and their production and time totally under the control of the mill owner.

There was seen to have been a number of strategies employed to accomplish this class transformation of producers from independent contractors to wage labourers. In the textile industry technological introductions facilitating centralized factory production were accompanied by the capitalist erosion of traditional restrictions on the supply of labour, the threat by capitalists of technology introduction to eliminate jobs, and the parliamentary and legal aid of the state in encouraging unhindered labour competition.
The effect of these techniques was depressed wages and an erosion of unity for workers.

In the U.S. steel industry the complete authority of skilled workers' control which existed in the relations of a 'co-operative partnership' reflected the necessity of highly skilled job functions in the production process. The availability of technological improvements to the efficiency of steel production precipitated the capitalists' forceful smashing of these relations of production. The unambiguous and state supported wresting of control of production from the producers again exemplifies the transformation of this class into wage labourers. Once this transformation was achieved the type of strategies seen to have been employed in the process of the textile industry's transformation, were then employed. These strategies included the creation of a highly stratified division of labour, the creation of artificial 'job ladders' to differentiate and individualize workers, and the adoption of a wage incentive scheme which had the effect of focusing workers' evaluation of their production relative to their fellow workers rather than to its worth to the company. Not only did the capitalists in the steel industry re-order the relations of production to capture complete control of the production process, but they structured the process to encourage workers' willing compliance in the structure of subordination.

Thus, the emergence of the factory system, with its labour replacing and deskilling type of technology, marked the success of the capitalist challenge for control of the process of production.
Footnotes

1. It was Cartwright's perception of the bottleneck which motivated his inventive curiosity, resulting in the power loom.

2. Workers in the nickel mining industry have come to recognize output incentives as an "invisible supervisor". (Clement, 1980:141).
In chapter 2 the argument was made that the basic thrust of the reorganization of the textile and steel industries was to enable capitalists to establish total control over the production process. In part this was facilitated through the introduction of labour-saving technology, making the process more efficient. The control was also facilitated through re-ordering the relations of production to deprive the actual workers/producers any control over the production process, and to deprive them of their strength in their claims on the right to work in this production. It was argued that this experience typifies that of most capitalist industries, to one degree or another.

Chapter 4 examines how it was that the relations of production in the salmon fishery developed in exactly the opposite direction, and the attempt is made to argue why the capitalist processing interests found it to be in their favour to encourage this to happen.

The purpose of the present chapter is to explain the history of the development of the political economic structure in the salmon fishing and canning industry, as is necessary to the explanation of the industry's relations of production. West Coast salmon have for centuries been an important product for economic exchange. Prior to European arrival, natives used salmon for trade and other forms of exchange, both within their own groups and with other native tribes. With European settlement commencing at Ft. Langley in 1827, production
of cured salmon for the trading post and the supply ships began to occur. The raw salmon were supplied by the natives for extremely cheap trade goods - so cheap in fact that in 1828 "the expense in trade would hardly exceed the very cost of Lines and Twine" (Chief Trader McDonald, as quoted by Cullen, 1979:49, 50). By the early 1840s a market in cured salmon had developed with the native people of Hawaii, which marked the first instance of capitalist commercial export of Fraser River salmon. Other attempts to establish markets for cured salmon in Australia and Britain had disappointing results.

The supplies of raw salmon for this early curing industry came from native fishermen using their traditional methods. These included entrapment, weirs, spearing, and dipnetting techniques (Stacey, 1978:30). Prior to the development of the small export market for cured salmon, adequate supplies could be obtained through trade with itinerant native fishermen bringing their catch to the Hudson's Bay Fort Langley. Once demand had increased somewhat with the product's export, it was often necessary for the trader and curing party to travel up and down the river bartering for salmon (Cullen, 1979:50).

It was not until the commercial canning of salmon began on the Fraser River in 1870 (or 1871 - controversy exists as to the exact date; see - Stacey, 1978:5, Ralston, 1976/77: 71, Lyons, 1969:145, Carrothers, 1941:6), that the market for the product became firmly established. Canned salmon had a special appeal in the British market, being both relatively cheap and a rich source of protein. The B.C. Inspector of Fisheries noted in his
The revival of certain industries in Europe has been attended by increased demand; and by late accounts from London the canned fish had already reached, if it may not eventually exceed the ordinary figure. The market for this article, it may here be mentioned, depends intimately upon the condition of the manufacturing and mining classes in Great Britain and elsewhere, affording of them, as it does, in a convenient form, a very acceptable change from the uniformity of their ordinary diet."

Given this demand, it is not surprising that by the 1871 season there was competition in the Salmon canning industry on the Fraser River. By 1874, three canneries were in operation, eight by 1878, thirteen by 1882, and twenty-one by 1891 (Ralston, 1965:2). Some of these early enterprises were shortlived; in fact in 1884 and 1885 the number of canneries on the Fraser were reduced to six.

This new industry, the processing sector of which was based upon a factory mode of production, required a certain and regular supply of raw salmon. Though trading relations lingered for a short time, this source of supply was fairly quickly replaced by the employment of native fishermen on a daily or monthly wage rate. The fished for their employer/processor, using small flat-bottomed skiffs on the Fraser river. They used the gillnet 'drift fishing' technique, first introduced by the Hudson's Bay Company (Stacey, 1978:31). From 1870 until the latter part of the 1880s the fishery relied almost totally upon the employment of native fishermen, working a twelve hour shift, either night or day. Wage rates were in the region of 2.25 dollars for the fisherman and 2.00 dollars for the boat
puller per day (Ralston, 1965:41-42). By 1887 government legislation had allowed fishermen to be licenced independent of canneries and in 1887, 109 out of 467 fishermen were fishing independently for processors on the Fraser (Report of the Fishery Guardian on the Fraser River, Canada Sessional Papers, no. 6, 1888:257). These fishermen were using their own boat and nets and were paid by piece-rate per salmon. By 1894 these independent contract relations became dominant, though it was not until after 1900 that cannery licenced fishermen on wage rates were phased out on the Fraser.

The Federal government's regulation of the fishery prior to the turn of the century affected the development of the processing industry and the relations under which fishing took place. Though the Fisheries Act for the Dominion of Canada was proclaimed in 1868 (Canada Statutes 1867-68, pt. 2, chapt. 60:177), it did not apply specifically to British Columbia until July 1st of 1876 (Canada Gazette, May 13, 1876:1483). 1882 saw salmon fishing licences attached to canneries (Canada Sessional Papers, 1883, no. 7: 190) and 1887 was the first year in which independent fishermen (also known as 'outside' boats or fishermen) were allowed licences. In 1889 the first salmon fishing licence limitation programme for salmon fishermen was implemented by the Federal government, restricting the Fraser and Gulf waters to a maximum of 500 boats. 350 of these licences were allocated, on an equal basis, for canneries and 150 were allocated for independent fishermen. In response to canners protests, in 1892 the Federal government abandoned this attempt to limit fishing intensity. The fishery was opened to anyone who was a British subject (Canada Sessional Papers, 10(c), 1893:xii), and each cannery was allowed
to hold 20 licences, which was reduced to 10 in 1898 (Canada Gazette, Vol. 32, 1898: 280-281). The nationality criteria was largely ignored and proved to be a minimal impediment for non-British subjects wishing to obtain a licence.

The period of time just prior to, and immediately after the licence limitation programme was the period in which the relations of production changed from wage employee to one mainly of independent fishermen paid by piece-rate. For this reason the political economy of the industry during this period must be more closely examined.

By the mid-1880s the salmon canning industry on the Fraser was beginning to show signs of economic instability. Of the thirteen canneries in operation on the Fraser in 1883 only six were able to withstand the two years of poor salmon runs and depressed markets which followed.

In 1885 the Victoria Canning Company carried out the first amalgamation in the industry, and in doing so gained control of 38 percent of the Fraser River salmon pack for that year. This merger was followed in 1889 by the British backed British Columbia Canning Company whose acquisition of four canneries was mainly up the coast. Despite the attempts to consolidate the processing effort of the industry, the lucrative returns from good salmon runs and buoyant markets drew in many competitors. Ralston notes, (1965;25);

"Ewen fixed the returns in the industry during the five or six years ending in 1891 at 10 to 20 percent. This rush to get into the canning business shows that others thought good profits were to be made."
Thus, between 1886 and 1891 the 'rush to get into the canning business' nearly doubled the number of canneries to twenty-one.

There was yet another factor contributing to conditions of instability during this period. This was an apparent 'output plateau' above which the average daily production of any cannery, between circa 1883 and 1905, seemed unable to rise. The average daily production in 1883 was 1000 cases per day. By 1893 it had increased slightly to 1200 cases where it stayed until at least 1905 (figures from Stacey, 1978:28). At the same time there was no shortage of the raw product, as Ralston (1965:4) notes:

"Limitations on the pack, in most years of these first two decades, were from causes other than lack of fish. Not until the industry began to attain its full growth in the late 1890s did the phenomenon of the one big catch every four years become pronounced."

This situation suggests a constriction on the technical ability of any given canning plant to raise production above a level of 1200 cases per day, despite a general surplus of fish over the season, and a work force to capture them. Given that the ample supply and the market conditions were likely to encourage more production, this apparent 'output plateau' would imply that only by the building of more canneries could processors increase production. It also meant that the processing industry was likely to attract new entrants, thus increasing competition and countervailing the corporate attempts to rationalize the industry through amalgamations. Both modes of expansion occurred, such that between 1888 and 1891 inclusive, nine more canneries were established on the Fraser. This investment came from established processing firms seeking to expand

This growth in processing firms, and hence canning capacity of course precipitated an increase in the number of boats fishing the river, such that by 1887-'88 the Fishery Guardians for the Fraser were calling for boat restrictions on canneries (Canada Sessional Papers, no. 6, 1888:256, and no. 8, 1889:244 & 245). It was in the light of this situation that the Federal government imposed the licence limitation on fishboat numbers in the Fraser and Gulf salmon fishery. The limitation of 500 boats was an attempt to establish ecological management of the resource to avoid the plight overfishing had caused on the Columbia and Sacramento river systems. However, it also can be viewed as an attempt by processors and government to impose common conditions regarding the capture of the raw input, which would bring some measure of rationalization of production to the industry. The Fishery Guardian for the Lower Fraser River (C. H. Green in Canada, Sessional Papers, no. 8, 1889:245) reported:

"I have spoken to several owners on this subject [overcrowding], and they state they would be satisfied with 30 boats provided they were all to take [i.e. to have] the same number."

The subsequent imposition of the 500 boat limit, 350 to canneries, "...were acceptable to the existing cannerymen because it gave them a practical monopoly of the Fraser river sockeye salmon fishery." (Doyle, 1957:204).

In the first season of licence limitation, 1889, the canners' wishes seem to have
been satisfied. The number of licences available to each cannery "...was said to be 40 ...")(Ralston, 1965:43, quoting News Advertiser, Aug. 2, 1893:2). However, in fixing the number of licences in total to be divided among an unregulated number of canneries, an increase in the number of canneries of course decreased the number of fishing licences available to all the canneries. Since canning capacity was dependent upon fishing production, it was in the interest of existing processors to construct new canneries, if only to collect the fishing licences as they were re-allocated. Thus by 1891 the number of canneries had risen to 21 while the fishing licences of each reportedly dropped to 20 (Ralston, 1965:43). In effect, the supply of "indentured" (cannery licenced) fishermen for each cannery shrank as licences were re-allocated through the expanding processing structure. The consequent shortage of these cannery fishermen - the same wage labour sector the canners had always relied upon - forced the canners to rely heavily upon the independent or 'outside' fishermen, engaging them on a piece-rate per salmon basis of payment. For a short time the licence limitation regulations propelled these independent fishermen into a position of a "...privileged group of contract fishermen" (Ralston, 1965: 52).

It was in this increasingly competitive and unstable business environment that the largest corporate consolidation in the B.C. processing industry to that date took place. In 1891 the Anglo-British Columbia Packing Company acquired seven of the twenty-one canneries on the Fraser River. In doing so they bought out all the American-owned
canneries on the Fraser (Ralston, 1976:172) and, with Ewen and Company and the Victoria Canning Company Limited, controlled over 70 percent of the Fraser River salmon pack (Reid, 1975:282). Anglo-British Columbia Packing Company became "...at that time the largest producer of sockeye salmon in the world" (Ralston, 1965:25).

Thus by 1892 conditions in the industry were such that agitation for the repeal of licence limitation came from processors, and from fishermen unable to obtain licences. Salmon processors were facing rising input costs from having to pay independent fishermen higher rates due to the limitation on cannery licences, and constantly faced problems in getting enough fishermen. Fishermen who were unable to acquire independent licences, and were not accepted to fish under a cannery licence, charged that the canners were monopolizing the river by virtue of holding the majority of the fishing licences. It was in response to these conditions that licence limitation was repealed in 1892, opening the fishery to any British subject and allowing canneries to each have twenty fishing licences.

The legislation ending licence limitation was not the resolution canners had sought. While they did not agree whether numbers of fishing licences should be limited or unlimited in number, they all wanted licences totally tied to canneries. The failure of this to occur notwithstanding, the elimination of licence restrictions was a resolution most suited to the newly formed 'big capital' interests of Anglo-British Columbia Packers. They, more than any other firm, were structurally most able to
attempt oligopsonistic manipulation of the price of their raw salmon inputs. Bell-Irving, of Anglo-British Columbia Packers, did not seem unenthusiastic about his company's fortunes for the 1893 season.

"All who care to pay the fee may get a licence and the river is covered with fishermen, about 1200 in all have been issued. The canners are thus pretty well assured of their supply and have put the price to what they consider a proper price ..." (as quoted by Ralston, 1965:53).

However, for another nine years the stability of the industrial structure of salmon processing was insecure. The Anglo-British Columbia Packing Company was financially unable to buy out competitive processors and thus could not maintain its dominant position. By 1901 the number of canneries had again almost doubled from the twenty six in operation in 1893. The consistent and unusually large salmon runs of the latter half of the 1890s, along with the increased labour supply of fishermen after the abolition of licence limitation, contributed to this growth in the processing sector. At the same time it was a period of rising fish costs and falling prices, exacerbating the effects of the growth in the number of processing firms. The period also marked the beginning of fishermen developing a sense of class allegiance out of which grew at least three major strikes. Two of these, in 1900 and 1901, each involved 8000 fishermen and lasted twenty-three days and seventeen days respectively (Gladstone & Jamieson, 1950:150).

In 1902 the British Columbia Packers conglomerate was formed with the acquisition
of forty-two canneries, twenty-nine of which were on the Fraser. In this year, B.C. Packers processed 51 percent of the total pack on the Fraser, and 43.7 percent of the pack coastwide (Lyons, 1968:678–681). By 1905 B.C. Packers had consolidated their processing operations on the Fraser into fifteen plants.

This rationalization of production allowed B.C. Packers considerable economic strength in the industry. In terms of their profit margin, between 1902 and 1908 (excepting the exceptionally profitable production of 1905) profits per case of canned salmon did not exceed 70 cents. In the 8 years after 1908 however, profits never dropped below 1.09 dollar and usually exceeded 1.35 dollar (Doyle Papers, Box 11, File 4). Their strength of oligopsony allowed price cutting to occur, when it seemed unlikely to incite the degree of labour unrest which had occurred at the turn of the century (North & Griffin, 1974:7). These economic strengths enabled B.C. Packers to continue, through the years, to acquire more processing plants, thus maintaining their dominant position in the industry.

To complete this examination of the historical developments out of which the modern relations of production in the salmon fishery were established, one further aspect remains to be discussed. This is regarding the alternative mode of salmon capturing technology which capitalists might have adopted, rather than the labour intensive mobile gillnet technology. Prior to European contact native Indians were using traps and other forms of stationary capture technology at river mouths and banks, and ocean beaches and coves
(Stewart, 1977:99 - 100). These techniques, along with the mobile netting forms of capture continued to be used by the natives to supply the salmon curing industry established by the European traders. With the emergence of the salmon canning industry on the Fraser, the adoption of the gillnet and skiff mode of fishing which utilized the extremely cheap native labour, was a logical choice. The natives stationary capture methods were rudimentary (see Ladner & Ladner, 1979:83), and were not located near the river sites of canneries. In 1877 a person of European origin constructed a very ineffectual trap, made of wood pilings and stone fill, on the Fraser below New Westminster. Its total failure to catch salmon resulted in its abandonment the same year (Canada Sessional Papers, no. 1, 1878:290-301).

More sophisticated stationary capture technology did not come to the North American West Coast until 1879 when fish wheels appeared on the Columbia River. These had been adapted from ones used on eastern rivers, especially in North Carolina (Netboy, 1980:26). The Canadian Federal Fisheries Act of that time appears as though it could have been used to preclude the adoption of fish wheels on the Fraser River. However, there is no evidence that this technology had even been considered.

In 1891 traps were established in the State of Washington, capturing salmon bound for the Fraser River (Carrothers, 1941:66). In response to this encroachment on the harvest, in 1894 the Canadian government allowed pound-net traps to be used in the
Mud Bay, Boundary Bay region on an "experimental" basis (Dept. of Fisheries General File, File No. 3005, microfilm reel nos. 1 & 56, 1895 & 1899). These, and the traps in Washington State, were used by canners to augment supplies of raw salmon, causing fishermen to make repeated protests to the Federal Minister of Fisheries and requesting that the traps be made illegal.

In 1904 the Fisheries Act was amended to allow the licencing of trap-nets (Canada Gazette, May 7, 1904, January - June: 2207 - 2208), in an effort to capture the salmon bound for the Fraser River before they were captured by the American salmon traps in the San Juan Islands and Point Roberts. While thirty-three licences were granted, only four traps actually were operated in 1904 (Carrothers, 1941:19). Most of the licences were for trap nets situated in the southern Vancouver Island region of Sooke. They were used almost exclusively at five shore sites near this small community, until 1959. By this time the competitive efficiency of the power block seiners prevented the trap net technology from capturing sufficient salmon to make its operation economically viable.

Thus, techniques of stationary capture of salmon never really got anything more than a 'toe-hold' in the industry. Their introduction was so late that a well developed system of mobile net fishing had become established, and had developed relations of production which excused capitalists from the responsibilities attendant the organization of the capture of raw salmon. Given the state of which this mobile fishery had
developed, and its ability to provide adequate supply of fish to the canneries, the in-
ducement on the part of capitalists was not to invest in fishing technology but rather concentrate on corporate control of the processing sector. It was at this level which investment and technological innovation occurred.

The examination of the B.C. salmon fishing and canning industry has attempted to focus attention on the political economic factors of its development. It was found that the early fishery developed into a commercial industry with the introduction of the canning process. During this early period the fishermen were predominently native, and were employed by daily or monthly wage payment. The growth of the canning industry, coupled with government legislation, changed the relations by which fishermen were employed such that by 1894 the majority were independent fishermen paid by a piece-rate system. Instability in the canning industry persisted until the major corporate consolidation brought about by B.C. Packers in 1902 rationalized production to the point where their profitability and oligopsonistic power insured their dominance in the industry. The use of stationary capture techniques was found to be very limi-
ted, and regulated under the Federal Fisheries Act. This was not at all found to con-
strict the development of the industry as it enabled processors to move out of their involvement in the capture of salmon, and concentrate their efforts and investment at the processing level.

Chapter 4 shall examine the consequences of the changes for the relations under which production took place, and examine how this development differed from the 'normal' pattern, as exemplified in Chapter 2.
Footnotes

1. Seventeen years later the cost of this acquisition of salmon for cheap trinkets and buttons had not changed (Cullen, 1979:50).

2. The corresponding development of the capitalist economies of the Northwest Coast and of Hawaii produced an ironic situation. Native Indians on the Fraser were producing salmon for a capitalist market demand from Polynesian natives of Hawaii.

3. "When the natives who had dipnetted salmon at Boundary Bay had loaded their canoes, they paddled through Canoe Pass to the river and went from one cannery to another in an effort to sell the salmon." (Ladner & Ladner, 1979:83).

4. The United Fishermen and Allied Workers' union historical account of the labour struggles in the fishing industry mention a refusal to fish on the part of the Cowichan Indians in 1883, unless they received 3 dollars per day (North & Griffin, 1974:2). Gladstone (1959:132) cites this same wage for 3 dollars per day was the central issue of a fisherman's strike; this time in 1893.

5. At first the regulations permitted only 100 independent fishermen for a total of 450 including cannery fishermen (Canada Sessional Papers, no. 17, Appendix 9, 1889:254). In 1889 50 more independent fishing licences were issued, bringing the total to 500 (Canada Sessional Papers, No. 8, Appendix 4, 1891:68).

6. This period between 1886 and 1891 seems to have escaped the usual two year cycle of poor salmon runs - see Carrothers (1941:14.)

7. It was in 1906 that the 'iron butcher' was introduced into the canning process, greatly speeding the work.

8. Not until around the turn of the century did canneries introduce multiple canning lines (Stacey, 1978:29 & 52).

9. In 1889 the industry on the Fraser reported its largest pack to that date, exceeding the previous record of 199204 cases in 1882 by 104671 cases, or 52.5 percent (Lyons, 1969:705-706).

10. The licence limitation programme, like the one which was to follow 80 years later, thus had the opposite effect to its intention, in its encouragement of capital investment.

11. The creation of these 'dummy canneries' might account for the mathematical discrepancy in the division of the reported number of canneries for each year into 350 licences, compared to the figures cited here - for example, 40 licences per cannery in 1889. The newspaper might well have been reporting the licences utilized by operating canneries.
12. As natives constituted almost all of the cannery licenced fishermen, Doyle's (1957: 204) perception of political reality; that "...Indians had no votes; white men did..." indicates from where the monopolization charges would have arisen.

13. Of the 68 canneries in operation along the coast in 1902, B.C. Packers owned 32. 10 were not activated in this season.

14. Attempts to have the trap declared illegal were based on the 1868 Fisheries Act (section 13, sub-section 2) prohibiting fishing gear from obstructing navigation. The trap in question was found not to be in contravention of this regulation. For some reason the trap objection did not cite the Fisheries Act prohibition on "bag-nets and trapnets and fish pounds..." in section 13, sub-section 7 (Canada Statutes of Canada, 1867–68, pt. 2:183).
Chapter 4

The Development of the Relations of Production in the Salmon Fishery

In the examination of the British textile and U.S. steel industries an attempt was made to highlight the contributing factors which brought about the dramatic change in their relations of production. It was argued that the changes were brought about largely by a developing capitalist structure which was responding to expanding markets, and by technological developments made available to the capitalist sector, which in turn made use of these innovations to re-organize the process of production. Technology was used either to replace a sector of the work force, or to allow the creation of a relationship between the producer and the task which was controlled by virtue of the capitalist's ownership of the technical means of production. Tasks were divided into segments based on technical criteria, and payment was rewarded on the basis of time. It was argued that capitalists sought to create a relationship with producers which facilitated ease of supervision, and which placed all aspects of production in the control of management; control over production was established by controlling every process of production.

The B.C. salmon fishery's capitalist stage of development went through a radically different progression in capital's relationship with producers. As was discussed in Chapter 3, the fifteen year period between 1887 and 1902, was the crucible in which
the political economy of the salmon fishery and processing industry was formed into its modern stage of production. It was an industry initially organized around a trading economy, with native fishermen supplying the salmon from their traditional fisheries. When cannery production began in 1870, the requirement for a steady supply of fish compelled the early processors to utilize this same knowledgeable and skilled labour force. The native fishermen were employed on a daily or monthly wage. Eventually the relationship became one of contract based on the number of fish caught, and finally one of contract based on weight by pound. The relations of production thus went from those of primitive trading, to those of employer-employee, to those relations analogous to the putting out system of the textile industry or the 'co-operative partnership' of steel production. This pattern of development is indeed curious when compared with the previous industries of textiles and steel. This chapter proposes to examine the development of the B.C. salmon fishery's relations of production, and the forces which shaped this development.

The first condition which must be examined is the nature of the market for which this industry began producing. The very early commercial trade in salted salmon was mainly with Hawaii and Britain, and was very limited (Carrothers, 1941:5-6). However, by 1870 the technique of preserving salmon by canning allowed the product to be sold anywhere in the world. In as much as it was a cheap and nutritious source of pre-cooked protein, it was a product for which a mass market was soon established. Unlike the textile industry, the commercial salmon industry was (except for the small demand which
had previously existed for the salted salmon trade) a product of this newly developed commercial demand for canned salmon. For all intents and purposes, prior to these developments salmon could not be put on the markets of Britain and Europe in a form popular to the consumer market. Thus, the role of the merchant was one where the production of canned salmon was essentially conceived and initiated by them, and so from the outset these capitalists retained control of the form by which labour would be organized. It was not a case of interposing a merchant function between the production and the market, as had happened in the long established textile industry. The developing and changing markets for textiles in Britain in the 18th and 19th century, and the U.S. demand for steel in the burgeoning post civil war industrial growth of America, profoundly altered the relations under which production took place. In the salmon fishery, on the other hand, the opportunity for merchants to derive profits from markets for canned salmon in turn created the commercial demand for the production of raw salmon.

The absence of any previous, solidly established relations of production enabled processors a range of options in establishing the relations under which salmon would be produced for canning. The previous impermanent and minimal relations existent in the trade with native fishermen made uncertain the steady and adequate supply of salmon which was necessary to keep canneries in uninterrupted operation during the season. Thus, while for a few seasons some trade with natives for salmon persisted, the introduction of cannery demand for raw salmon immediately changed this relationship to one of wage paid labour using company supplied boats and gear.
The natives early monopoly on fishing employment was facilitated by the region's lack of available supply of alternative labour. As Ralston (1965:10) has noted, the province wide population figures indicate a majority of natives, over all other racial groups combined, until at least 1881. There was an increase in the immigrant population of 165 per cent between 1881 and 1891. By the latter date natives comprised only 35.8 percent of the total population. By the 1890's the completion of the railway and the termination of 'gold rush fever' made available more non-native labour to enter the fishery.\

Although the relations of production in the salmon fishery have been dominated by the contract system, the first twenty year period was one in which wage labour relations prevailed. It is argued that the choice of a wage labour relationship reflected the fact that the fishermen of the early industry were almost all native people. Their relatively fresh exposure to a monetarized economy, coupled with the likelihood of fairly rigid levels of income expectation, can probably account for the processors' initial adoption of a wage labour type of relationship.

There is a striking resemblance between the problem processors resolved with the native labour force, and the dilemma which putter-outers confronted in their efforts to increase production in the face of producers resistance. In the putting out system, the
decline in production from textile workers, in response to price incentives during periods of increased market demand, parallels the situation with which processors could have been faced, had they adopted a contract system with the native labour force. The employment of native fishermen by piece-rate would not have been likely to increase their productiveness, if an increase occurred in the strength of the salmon run. Such an increase in the availability of salmon would simply mean they could tie their boats up sooner, having caught sufficient fish to have earned their expected income.

The inchoate processing firms were in no financial position to have their canneries operating at anything less than full capacity, if the stocks were available. When the runs of salmon were flooding in they wanted their fishermen to be working full time to increase production. Under the day wage (or monthly wage) system the capture of salmon could proceed until the day was complete, irrespective of the number of fish caught. Though supervision of the task was, of course, impractical, the relatively constant volume of the resource in the very short term, in the early years at least, meant that catch returns abnormally lower than the rest of the fleet could be recognized as unsatisfactory labour performance and be dealt with on this basis.

In the changing conditions immediately prior to, and during the initial licence limitation period, the wage labour relationship between processor and fisherman began to be abandoned. This marked the beginning of the pre-eminence of independently licenced contract fishermen, or as sometimes known, 'free fishermen'. However, to fish by contract
under an independent licence does not in itself preclude a wage based relationship. It is argued that this relationship began to change to one of contract based on piece-rate production due to a combination of cultural and economic factors.

The dramatic growth in the non-native population during the latter part of the 1880's meant an influx of workers of European origin (including Americans from the overfished Columbia and Sacramento fisheries) and Japanese immigrants to the salmon fishing industry. Fishermen of European origin were the first group to hold independent licences when these were first implemented in 1887. After 1892, with the abolition of a limita-
tion on licence numbers, Japanese fishermen were issued independent licences and began fishing on contract. The native fishermen were the last to switch to independent licenc-
ing and the piece-rate contract system, and were apparently reluctant to do so.²

As has been argued, the 'market place naivete' of native fishermen was a cultur-
ally distinctive economic response to the relatively new concept of 'employment'. In this respect, the explanation of cannerymen (re:the 1892 Fishery Commission Sessional papers, 1893, 10C : 12, 108, 417; also Ralston, 1965:45 in his reference to Rounsefell and Kelez), that natives were less productive and thus were kept on the wage system, is too 'off hand' to accept.
One would expect that processors, faced with a group of 'low producers', would most ideally be insured against paying for indolent work habits if their payment was based on the basis of productivity. It is interesting to note that in periods of excessive supply due to large runs of salmon, it was the cannery licenced wage paid fishermen; i.e. the native fishermen, who were laid off first (Ralston, 1965:45). This suggests that production supply, and/or cost, were easier to manipulate by price paid per salmon that by wage paid per day.

To examine this question it is necessary to recall the central characteristic of the native wage labour fishery. This was that, in terms of their cultural values, they were a work force whose inclinations were not competitively motivated to capture as many salmon as they could lay their hands on. Thus, the native fishery might best be described as having a 'constancy of production effort' over a wage paid period, which was usually a 12 hour shift. In this organization of labour fishing continued throughout the period, irrespective of the quantity of production. Production effort was, in this sense, inflexible. While the likelihood of increased effort to catch more fish in times of scarcity was low, by the same token, this 'base line' of effort might provide more fish than canners could process during good runs.

As noted in Chapter 3, competition in the industry was growing during the late 1880's and 1890's, and at the same time it appeared that efficiency of canning technology had struck an 'output plateau'. It is reasonable to assume therefore, that in this demanding commercial situation processors would be sensitive to the efficient use of their
licence limited fishing labour and capital. It is thus likely they would be especially sen-
sitive to the economic discrepancy which existed in paying for an extremely fluctuating
input supply on the basis of a steady wage rate.

In regard to the efficient use of fishing labour and capital, the wage system allowed
fishermen to work with the same intensity during times of scarcity as during times of glut.
In times of scarcity the intensity of effort, to the processors' mind, would be inadequate.
In times of glut it would be excessive.

In regard to the economic discrepancy, the value of the daily wage bore no rela-
tion to the value of the catch; a value which of course was determined by its relative
scarcity or abundance at any given time. Thus, during an oversupply the same daily
wage rate applied even though the ample supply of fish depressed their value to the pro-
cessor. In fact, an inaccurate judgement on the part of the processor might have a work-
force whose production might have had to have been heaved overboard.

Though firm evidence is very difficult to establish, it appears that the cost of
salmon purchased from independent fishermen on piece-rate was higher, except in times
of excessive supply, than its cost from wage-paid fishermen. It is argued that the adop-
tion of the piece-rate system suggests an attempt on the part of the cannery processors to
establish input stabilization. The processors' willingness to pay higher prices for the raw
product under piece-rate relations of production reflected an approximation of its value
during periods when supply was less than the processing capability of canneries. By paying a higher price on the basis of piece-rate, encouragement was given to fishermen to increase production. For canners, in these periods of under-utilization of canning capacity, the increase in raw supplies meant an increase in sales and thus increased profits. Under the piece-rate system the increased payment per fish to fishermen represented the processor's judgement of the value of the profit he would forgo, should the supply of raw salmon fail to match his cannery's processing capacity, given that there were markets for this increased production. However during times when the supply of salmon was excessive, processors dropped prices to around two cents per fish. This price very closely approximated the cost of fish from wage-paid fishermen, and also the cost of fish purchased by piece-rate prior to the introduction of licence limitation (the figures quoted are from Ralston, 1965:43, who quotes from the News-Advertiser, July 25, 1893:7, and Canada Sessional Papers, 1893, no. 10c:29 - evidence of Bernard Buck). It thus appears evident that in times of excess production, fish purchased from independent fishermen by the piece-rate system cost the processors little, if any, more than the cost of fish by the wage-system.

The development of the piece-rate system of independent commodity production is argued to have been basically motivated by economic considerations; i.e. production was manipulated by price. In this sense it was completely different to the development of the relations of production in the industries examined in Chapter 2. There it was argued that one of the key motivations underlying the adoption of technology and the replacement of workers, in the textile and steel industries, was the intention of capital-
ists to gain control over the process of production and to create a technical division of labour. Capital sought to eliminate the power which was available to workers through control of their work processes and skills.

The salmon processors' adoption of independent commodity relations of production allowed them to ignore these factors. Processors could encourage production by manipulation of price, and discourage production by setting salmon landing quotas. Given a labour force responsive to the theoretically unlimited monetary reward for catching an unrestricted amount of salmon, the competitive motivation to capture a resource common to all becomes a factor constantly encouraging production. Thus when a non-native labour force began to materialize, which was responsive to these competitive and self-aggrandizing motivations, the problems of supply and its fluctuating effect upon the value of labour could be greatly ameliorated through the adoption of independent commodity production relations.

The problems inherent in the wage labour system were able to be partially resolved by allowing labour to be paid on the basis of the value of the fish to the processor. However, a problem of supply still remained. As noted in the analysis of the putting-out stage of the British textile industry, the reduction of payment per piece to producers during a market slump, tended to encourage greater production as producers sought to maintain their former income level. In the fishing industry organized by a piece-rate system, the same consequence of price cutting can be seen to apply. Fluctuations in prices paid by
processors varied greatly during the 1890's both within seasons and between seasons. In
times when the supply of salmon exceeded cannery processing capacity the price drop­
ped as low as 2 cents per salmon. However, because fishermen sought to retain an income
level closer to the 10 cent per salmon rate which was the median, the tendency would be
for more fish to be caught and offered for sale. While processors were now shielded from
the economic costs of excessive production, it was not unlikely that they were political­
ly sensitive to charges of waste and mismanagement of the resource. It was a time when
the Federal Department of Fisheries was developing concern over the protection of the
resource, having been made aware of its depletion on the river systems to the south in
the United States. Therefore, in times of excessive production, when processors' drop­
ped prices and fishermen were likely to catch more fish, the canneries had to impose
limits on the catches to halt production. Even this was ineffectual at times, as Doyle
(1957:206) notes was the case in the extraordinary run of 1897.

"... not only were they the canners compelled to strictly
impose the 200-fish limit but men were so anxious to dis­
pose of their catches they voluntarily dropped the price
to 2¢ each and eventually thousands of sockeyes were
offered at 1/4¢ each without takers."

These very significant changes which occurred in the relations of production took
only some seven years, between circa 1887 and 1894 when 'free' fishermen on piece­
rate contract became dominant. Unlike the experience in the textile and steel industries,
and many other capitalist industries, this change in the relations of production did not
in itself occasion the anger or rebellion of workers. The independent control over pro-
duction which this system offered almost certainly was responsible for its agreeable
acceptance.

However, the new independent commodity production relations did provide the
structure and incentive in which there has been constant disagreement between labour
and capital in determining the value of production. The industry's long history of labour
disputes, the first in 1893 as contract relations were becoming dominant, is a testimony
to the depth of this disagreement. The discrepancy revolved around the fact that pro-
cessors sought a price for salmon relative to its supply, while fishermen sought a price
relative to their notion of the value of effort, and the cost involved in its capture. In
arriving at an assessment of the value of the product by these respective criteria, it
could only be coincidental that labour and capital would independently arrive at a com-
mon notion of value. The frequent fluctuations of supply would act to insure this was a
rare occurrence.

The argument has been that the change in the relations of production under which
salmon fishing occurred brought fishermen a great deal more independence from the direct
control of processors. This relationship allowed processors the freedom to re-value their
payment for production relative to fluctuation of supply. Capitalists did not seek control
over the process of production, but rather the thrust was toward establishing a nexus between
the amount of supply and the payment of labour. The process of production, found to be so impor-
tant in capitalists gaining control of the textile and steel industries, was taken care of in the salmon fishery by the competitive motivations potential in a resource open to common property exploitation. The appearance of a labour force whose cultural traditions made them responsive to competition of effort in the catching of salmon, was all the processing sector required to ensure the capture of the resource.

However, having established relations of production which would ensure capture, processors then were plagued with a problem upon which this capture would depend. This was, of course, the agreement upon the value of the product and hence the price fishermen would receive for their salmon. Therefore, two further inter-related variables can be identified as significant in their contribution to the structure of the industry, and its organization of production. These were the class reactions which developed among fishermen in their relationship with processors and capital's response to this class action, and the initiatives taken on the part of capital in affecting the relations of production.

In the textile and steel industries it was seen that class associations were formed, and grew in strength in the industrial structure which allowed the workers the control over the production process. The abolition of these relations of production sparked class reactions on the part of the workers, often involving the legal/legislative intervention of the state. In the case of the U.S. steel industry, in the Homestead strike, the workers' reaction brought in the state's militia to smash the workers' efforts to retain their jobs and the technical and social relations of their production.
As mentioned earlier in this chapter, the relations of production in the salmon fishery developed in complete reverse to what has been argued to be characteristic of capitalist industry. However, the tensions which developed between labour and capital, culminating in a class consciousness which one analyst (Frecker, 1972) has termed 'radical' and 'militant', occurred after relations of production became much more independent. The industry's long history of unionism and strikes began at the very birth of this independence. Between 1893 and 1901 four unions were formed, and there were at least four significant strikes in the Fraser River fishery in this period (Gladstone and Jamieson, 1950:148 & 150).

The motivation for the class reaction in the textile and steel industries focused around the erosion of workers' control of production, the security of their skill and work, and the effects of the erosion on their income. In the fishing industry the source of the conflict was, and has been since, centered around the price fishermen received for their catch. There were no demonstrations of labour unrest because of loss of jobs, introduction of technology, or loss of control of production. The reasons for the disputes being purely economic in nature are quite clear.

First as outlined in the discussion of the change from the wage to the piece-rate contract system, prices for the fish were subject to great fluctuation, both within a season, and between seasons. Thus, as Frecker (1973:80) has argued, many of the
strikes in the industry were related to the fishermen's refusal to accept price cuts from previous years' high prices.

Second, with the introduction of the 'free' fisherman contract system, capitalists began to dispense with the capital investment involved in boats and gear. At the same time there began a decline in the catch per unit of effort from 1892 onward (Ralston, 1965:74 - 76, quoting from Rounsefell and Kelez). This was a consequence of the increase of fishermen with the abolition of licence limitation. The harvest of the resource was becoming spread among an ever increasing number of fishermen, thus acting to lower their incomes. Canneries had not only an increased labour force competing to supply them with salmon, but they also were now beginning to detach themselves from the capital costs of this increase and place it upon independent fishermen. Thus fluctuations in income, and increased competition for the resource were the underlying motivations for the class reaction in the salmon fishery.

When compared with the industries analysed in Chapter 2, the response of capital to the development of class reaction was quite limited. In spite of the fact that there were many companies competing for fish prior to the B.C. Packers amalgamation in 1902, the difficulties in developing and maintaining unity among fishermen were greater than among canners.

The rapid increase in the number of fishermen, after the abandonment of licence
limitation, incidentally allowed Japanese and American fishermen to compete as 'free' fishermen with the established force of natives and people of European origin. The perception of the Japanese and Americans as interlopers prevented overtures for unity from gaining much acceptance. The native fishermen were the most successful in establishing unity among their own fishermen. Having held an early monopoly of labour in the fishery, and considering it "... their inherent and aboriginal right" (Gladstone, 1959: 132), they felt most keenly the effects of open and increased competitive pressure on the resource. Their position bears some analogy with the trade associations or union networks which textile workers developed, and used to try and protect their crafts. For the natives a network of cohesion already existed in the tribal and social ties of their communities. These associations strengthened the unified allegiance to class action when the need to strike was recognized.9

Unity among fishermen was also difficult to establish and maintain by virtue of the nature of the production process. Individual capture and sale of the product allowed a much more individualistic relationship with the processor/employer. It allowed the processors to negotiate prices with the various groups of fishermen, independent of one another. If successful in getting an agreement out of one group to go out and fish, the incentive for the other groups of fishermen to follow was greatly enhanced (if for no other reason than to prevent the strike breakers from making 'windfall catches'). Despite these problems, fishermen on the Fraser river managed to stage,
among others, the major strikes of 1900 and 1901, both involving 8,000 fishermen for
23 days and 17 days respectively (Gladstone & Jamieson, 1950:150). It was during the
1900 strike that processors, employing a familiar capitalist tactic, negotiated the
Japanese back to work and then called on the militia forces of the state to threaten
and intimidate the rest of the strikers back to work.

In regard to the initiatives taken by capital in structuring the relations of pro-
duction, one can probably already appreciate that there were significant differences
from those industries examined in Chapter 2. The textile and steel industries were sub-
ject ed to a thorough-going process of change directed toward the subordination of
labour and controlling the nature of the tasks of production. These initiatives were
largely superfluous in the salmon fishing industry. As argued earlier, the incentives
inherent in the independent competition to capture the common property resource,
were sufficient to encourage a commitment to production which exceeded that under
the wage labour system.

The area where capitalists felt inclined to gain control was in the processing
sector. It was through this sector which salmon had to be marketed, so control at
this level would enable capitalists a large degree of power to determine price and
quantity of production. As well, during the period of the late 1880s to the 1902
amalgamation of B.C. Packers, the structure of the industry at the processing level
was burdened with instability. This instability arose out of fluctuations in salmon runs and in commercial markets, but it can be argued that these are immutable conditions of an industry based upon harvesting a living and fugacious resource. Inability to change these conditions induced the most predominant capitalists to seek a rationalization at the production level which would best enable them to survive the periods of depression at either the supply or market level. Thus, consolidation of companies and cannery operations performed two harmonious functions. It consolidated the industry's processing effort such that financial returns to a much more efficient structure would be distributed to fewer corporate claimants. It also created a structure facilitating much greater oligopsonistic control of the price of salmon harvesting.

Efforts to consolidate the industry began in 1885, and were carried on most notably with the 1891 Anglo British Columbia Packing Co. merger. However, the conditions which support the argument above do not reveal themselves until the late 1890s. Reid (1975:291) presents a succinct analysis of these conditions.

"Between 1888-91 and 1896-9 the cost of raw fish per case of canned salmon had risen by 240 percent. Also, in the same period the price of canned salmon on world markets had fallen by about 25 percent. The resulting profit squeeze was a sore point among canners. Part of the blame lay in the large increase in the number of canning companies operating on the Fraser River from the late 1880s onward. This served to undermine the strong market position of the Victoria Canning Company and A.B.C. Packers in turn in the purchase of raw fish and the hiring of cannery labour. Attempts by informal
organizations of cannery proprietors to retrench by reducing the price of fish were increasingly unsuccessful during the 1890s."

It was out of this environment which the B.C. Packers consolidation in 1902 grew. It is also the first consolidation attempt for which clear motive evidence exists. In a letter to Aemillius Jarvis (soon to be vice-president of B.C. Packers) the two valuators engaged to determine the worth of the proposed acquisition wrote:

"By reducing the number of canneries operated, the tension upon the labour market during the height of the season's run should be considerably relieved by the adoption of more machinery and equipment in enlarged plants with much less labour for the same production."

"The capacity of a sufficient number of existing canneries is great enough with the expenditure of a few hundred dollars upon each to enable you to reduce the number of canneries by at least one half and leave the total capacity as great at least as at present." (Doyle Papers, May 8, 1902:7).

Thus rationalization of production was a major intent behind the corporate amalgamation.10

Further evidence exists however, to suggest that the benefits of oligopsony were also recognized in this move for corporate concentration. Henry Doyle (soon to become general manager of B.C. Packers), in correspondence to A. G. Kittson and Co. in Glasgow, wrote;

"Their competition [the 48 canning plants on the Fraser] was keen and in their efforts to obtain the advantage over their fellow canners, several of them started bidding
up the price of raw fish; the others naturally followed, and as a consequence the cost of raw material steadily rose until the cost of packing exceeded the selling price."
(Doyle Papers, February 11, 1902:1).

Further on in this letter Doyle mentions the effect the Canners Association had on helping to "...maintain prices and present a more unified resistance to the fishermen's demands..." but that the Association was on the verge of breaking up. Doyle implies that the reason for this break-up would be due to the inability of a canners association to distribute the benefits of associating equally among all members. These other firms reputedly felt this could only be effected through a permanent amalgamation. (Doyle Papers, February 11, 1902:2). The difficulty of maintaining a combine, after having experienced the unequally distributed consequences of fishermen's united strike actions (viz. 1900, 1901), was becoming painfully evident to Doyle - the industry expert, and Jarvis - the financial expert. Thus, the corporate merger package put together by Doyle and Jarvis not only intended to rationalize the processing structure, but also sought to control the price and deliveries of raw salmon.

It is also interesting to note the precedent which was set for this corporate concentration manoeuvre, in the 1893 formation of the Alaska Packers Association. This consolidation "had come into existence by the action of some ninety percent of the producers in that area... combining their operations" (Lyons, 1969:232). This, and the merger which had taken place on the Columbia in 1899, would not be lost on the American Doyle. As manager of his father's fishing supply company out of San Francisco,
he was well acquainted with the American and Canadian cannery associations. Thus, in 1902 he would recognize the effect the efficiency and control of price available to the Alaskan producers would have on the European markets where most of the B.C. product was sold. With the seasonal arrival of the salmon in Alaska well before the Fraser, the Alaskan product tended to be the price setter.

Finally, in regard to the oligopsony side of the argument, Stacey (1978:55) notes that if the formation of 'monopsony power' was to enable B.C. Packers to cut fish prices, it failed. He notes the lack of change of price in years 1901 to 1905. One cannot help but surmise that the response of processors, after weathering two very bitter and all-inclusive strikes in 1900 and 1901, would have been somewhat cautious in using their newly formed economic power over fishermen. It is unlikely B.C. Packers would have wanted to jeopardize its supplies by incurring another total strike during years of limited salmon runs, having just taken on heavy financial obligations in acquiring the capital to carry out the consolidation.

The analysis of the salmon fishery has, to this point, centered around the developments leading to a fishing labour force whose relationship with processors became one of independent commodity production. Developments in the capitalist processing structure were argued to be attempts to gain control over the level of competition at the processing stage, as well as attempts at control over fishermen in their efforts to determine the price of their own production of raw salmon. These developments occurred with fishermen using mobile capture/fishboat technology.
As discussed in Chapter 3, mobile capture techniques were not all that were available for use in the salmon fishery. The alternative to this kind of technology was that of stationary capture techniques. These included stationary traps set in rivers or coves, fish-wheels set in rivers, pound nets, and shore based drag seines. The technology was capital intensive in nature, and required only a few wage-paid employees for its operation. Had it been adopted in the B.C. fishery it would have facilitated the emergence of relations of production analogous to the industries examined in Chapter 2. However, the existence of this technology in the United States, and to a very minimal degree in the B.C. fishery, has had a peripheral effect upon both the development of the fishery's class relations, and upon its political economic structure.

Stationary capture techniques were adopted on the Sacramento and Columbia river systems, on the Washington coast, Bellingham Bay, San Juan Islands, and in Alaska. However this kind of technology was never widely used in the B.C. fishery. Government legislation, based primarily on the biological concern for the resource, was one factor acting to discourage its use. The recognition of the depleted state of the salmon stocks in the Columbia and Sacramento river systems induced concern on the part of Canadian legislators, not only over stationary capture techniques, but also over net sizes, lengths, closed seasons, etc. (for example, see Canada, Senate Debates, 1878, March 26: 287-292).

However, when the prohibition on capturing salmon using trap technology (in
the Fisheries Act of 1868, section 13, sub-section 7) was extended to British Columbia in 1876, there were no traps in commercial use to which it could apply. In 1877 one application was made to the Inspector of Fisheries for an exclusive drift net location licence on the lower Fraser river, and was summarily rejected (Canada, Sessional Papers, no. 1, 1878:290). In this same year the only trap ever to be built on the Fraser river ended the season as a complete failure. The problems of commercial salmon production were not at the level of capturing the raw resource. As Ralston (1965:4) notes; "Limitations on the pack, in most years of the first two decades, were from causes other than lack of fish." Given the suitable characteristics of the Fraser River for drift net fishing (Stacey, 1978:31, 32), and a native labour force highly skilled in working from small craft, the mobile capture gillnet fishery was a particularly appropriate response to the problem of catching salmon.

One could also expect the labour intensive nature of the mobile capture methods to be particularly appropriate for an industry operating for only a limited seasonal period. Labour did not have to be retained for the non-production period and thus ceased to constitute a cost to production. Capital equipment, whether traps or fish-wheels, or fishing skiffs and nets, constituted an unproductive investment during non-fishing seasons, and likely required expenditure on maintenance. Considering the traps used in the American Strait of Georgia cost upwards of 3000 dollars each (Carrothers, 1941:68, the figure is for the year 1900) while a gillnet skiff and net cost between 150 and 200
dollars, the inclination for the initial investor would be toward the mobile capture technology. After the more independent relations of production began to develop, the processors were absolved from even the capital expense of fishboats and nets and from their maintenance during the non-fishing season.

However, for a variety of complex social, economic, and geographic reasons, trap technology was in use to the south in Washington and Oregon. Its existence contributed an influence upon the development of the relations of production and on the political economy of the B.C. salmon fishery.

During the 1880s and 1890s the unregulated use of salmon wheels and traps on the Sacramento and Columbia river systems had depleted the stocks, and provided serious competition for fishermen of this region. The effect of this depletion was that many of these American fishermen left these conditions for the 'greener pastures' of the Fraser River fishery. The casual interpretation of the 1892 'British subject' licence requirement proved little hinderance to their entry. The effect upon the local Fraser River fishermen was yet another source of competition on 'their' resource from a labour force essentially displaced by trap technology further south. Along with the Japanese, the American fishermen were an identifiable group upon which the strikers in 1893 heaped blame for the depressed prices because of excess competition.

From 1895 until 1897 the competition from American traps was more directly
and keenly felt by the Fraser River and Gulf fishermen. During this time Canadian canneries were allowed to import raw salmon duty free from the United States (Carrothers, 1941:49). In the strike of 1897 Fraser River canners used this option to their advantage in securing supplies of salmon from the traps in Bellingham Bay. This alternative source of supply was effective in breaking the fishermen's strike for higher prices (Gladstone, 1959:135). As was seen to be the case in the textile industry, the technological options available to capitalists often enabled them to use the technology not so much for its productiveness per se, but for the social function of imposing 'production discipline' upon the work force.

The B.C. salmon fishery's development of relations of production has thus been argued to be quite the opposite experience from the relations of production which developed in the textile and steel industries. The commercial fishery first developed out of the creation of a capitalist salmon canning industry, and in its initial stages engaged labour on the basis of wage-paid employment. Changing conditions in the political economic structure, as well as in the labour force, enabled processors to move to the more independent relationship of contract with their salmon fishermen. This independent relationship brought with it contradictions in the determination of the value of the product, which in turn contributed to class reactions on the part of the fishermen. Capital's response was to rationalize production at the processing level and at the same time create a corporate structure facilitating some degree of oligopoly control over supply. With this in place the relations under which fishing production occurred were established for the future.
Footnotes

1. At no time however did the processors seem to have experienced a shortage in the supply of fishing labour per se.

2. Ralston (1965:67) notes an expressed desire by some natives, in 1897, to return to the wage system.

3. A comment must be made to what is essentially a discussion about differing attitudes to paid employment. It involves the European cultural bias in describing native fishermen as 'less productive'. The term reveals a prejudice against what basically was a sensible recognition of the value of material commercial rewards relative to the rewards available from non-commercial use of productive time. Northwest coast natives were not unique in this respect. The textile producers' had a similar attitude to commercial labour in the putting-out system, which was a source of great frustration for putter outers.

4. Some analysts (for example, Gladstone & Jamieson, 1950:147) seize upon 'exclusion of the Japanese' as the stimulus of the early labour disputes. This analysis tends to ignore the economic basis to this class division and hostility. The Japanese represented a more compliant labour force willing to accept a value for their product which was less than natives, and fishermen of European origin, were prepared to accept. The fact that racially they were a group which acted in this manner made them easily identifiable. The 'racial reputation' having been struck, ideology, and canners efforts, acted to isolate this group, which allowed them to then be identified when calls for limiting the number of fishermen were being made. Natives were far less cooperative with canners (see Knight, 1978:Chapter 6) and suffered little or none of this antagonism.

5. As argued in Chapter 1, this problem of either increasing number of fishermen, or decreasing supply of the resource, in a situation where the resource is common property for all to lay claim, has plagued the salmon fishery from this time onward.

6. The shifting of this capital investment in fishing gear onto fishermen assumed significant proportions after 1907, when the gillnet fleet began to be motorized. Had processors retained this ownership function, either motorization would have been delayed (as it was in the Northern district until 1924 by government legislation) or the number of fishboats would have been greatly reduced.

7. In 1893, the year of the industry's first fishermen's strike, there were 26 canneries listed in operation. In 1901 there were 49. However some of these were not operating and were used merely as a strategy for companies to acquire more cannery fishing licences (Ralston, 1965:2).
8. Gladstone (1959:30), in describing the reasons for formation of the Fraser River Canners Association in the early 1890's (which pre-dated the actual beginning of this particular association by a decade - see Lyons, (1969:67), states that; "This body functioned also as a tightly-knit employers' association in dealing with fishermen." There is reason to question this assertion. Lyons (1969:671), lists three associations prior to 1902: the first from circa 1892 to 1894, a second from the autumn of 1897 until a merger with the Fraser River Canners in 1902, and the Fraser River Canners which formed in 1900. This hardly suggests a tightly knit association. Furthermore, in the events leading to the strike in 1893, major divisions in the ranks of the canners were reported (Ralston, 1965:52). While in the end the strike was defeated by a creation of unity among canners, the comment of Bell-Irving that; "...on this occasion at least canners had taken united action..." (as quoted by Ralston, 1965:60) fails to describe the unity as a foregone conclusion. 'Breaches in unity' were noted in 1894 (Ralston, 1965:62), and were again feared in 1902 (Kittson letter, Doyle Papers, February 11, 1902:2).

9. While of course the formation of native people into tribal groups was based on ethnic affiliation, the strength of these group ties were likely the major contributing factor to the development of a consciousness of class and the development of class affiliation and class action in the form of strikes. In this sense, it was the 'making of the native working class'. An analysis of class formation must of course recognize the influence of such social phenomena as ethnicity.

10. It might be thought ironic to view this evidence of rationalization of the cannery production process as a challenge to the argument presented in Chapter 2. There, the point was made that the capitalist organization of production is fundamentally directed toward attaining control of the production process. The evidence presented here suggests that the rationalization of production by the closure of inefficient plants was the motivation. However, these consolidations of production did not change the relations under which labour was employed. As well, in regard to the underlying set of stimuli for rationalization, it is relevant to note that the price of Chinese labour was increasing. The head tax on the immigration of Chinese was raised in 1900, to 100 dollars, and to 500 dollars in 1903, by a Federal government attempting to discourage Chinese immigration. Thus not only did Chinese labour become scarcer, but the Chinese contractors were having to pay more each season to bring in new immigrant workers. Later, these effects on the cost of labour were further exacerbated by the Chinese workers holding out "for larger advances than contract bosses were willing to give" (Stacey, 1975:57 & 58). Thus rationalization of production was in part an attempt to gain some control in a labour environment externally manipulated by the state.
Chapter 5
Conclusion

The focus of this thesis has been upon the relations which develop between producers and capitalists in the process of production. Initially attention was directed toward the relations of production which developed in the British textile and United States steel industries. While empirically grounded, the analyses in Chapter 2 sought to illuminate the Marxian theoretical concept whereby the production relations of the labour process, in the capitalist mode of production, become subordinate to the production relations which allow capitalists to create and appropriate surplus value of production. The examination of the textile industry illustrated the techniques by which capital was able to appropriate absolute surplus value by creating a necessary function for itself, and organizing production to be carried out by wage paid employee producers. Further appropriation of the value of labour's production; i.e. relative surplus value, was seen to occur with the introduction of technology into both the textile and steel industries. It was argued that this subordination of the production relations of the labour process - to relations which allowed surplus value to be appropriated by capitalists - was accomplished through capitalists taking total control over the labour process; its technical division of labour, its skill components, and its use of technology. The analysis of the textile and steel industries was thus an attempt to present the quintessential elements in capital's execution of this process. Stone's (1974:114) analysis of the result in the steel industry summarizes the intentions of
capital in seeking control to define the relations under which production is to occur.

"They [the employers] were successful, and the prize they won was the power to introduce labour-saving technology and control the production process. They become the sole beneficiaries of innovation."

The analysis of the B.C. salmon fishing industry found the opposite experience in the development of the relations of production. Capitalists, in establishing a market for salmon through the process of canning, in effect created the commercial industry of salmon fishing. Capital was thus relatively unhindered in establishing relations under which a labour force would fish for salmon. For the first 20 years of the industry, this relationship was one of wage paid employees. Since then, in a variety of forms, the relationship has been one of independent commodity production.

The analysis in Chapter 4 argued that the change occurred due to the availability of a labour force responsive to competitive motivations, and due to competitive conditions at the processing level impelling canners to utilize their salmon fishing labour more efficiently. The analysis further maintained that the creation of this independent labour force encouraged capitalists to direct their investment into the canning level of production. This was to facilitate the economic rationalization of the process, and to gain greater oligopsonistic control over the price of the raw product from the independent commodity producing fishermen.
To refer back to Stone's summation of the 'prize' won, by employers, of attaining the "power to introduce labour-saving technology and control the production process", this plainly did not occur in the experience of the salmon fishery. It is on this point that the essential difference in the relations of production in the fishing industry rests. The point is that the 'prize' is simply irrelevant to capitalists processors, at the fishing level of production. As the thesis sought to demonstrate, the extraction of profits by capitalist processors did not rely upon technological efficiency or control of the production process. Rather it relied upon having fishermen work in intense competition with each other with no limitation upon their numbers, and (in the absence of licences tying fishermen to canneries) that the processing structure become concentrated and achieve oligopsonistic characteristics in their industrial structure. It thus was not capitalist control of the relations of production which created the motivation to catch salmon. Instead, it was a consequence of the resource being common to all who wished to participate in its exploitation. The competitive element is, of course, the result of the inability to claim any part of the resource prior to actual capture. Thus production of raw salmon entails competition to capture the fish before it is captured by others.

With this in mind, the theoretical validity of Clement's analysis bears some scrutiny. Clement (1981:11) perceptively states:

"The nature of exchange (the market) influences the way individual producers organize production (social relations) and the equipment they use (technical relations). It is important to keep
in mind, however, that the market itself is an expression of the social relations of production. If capital dominates the market then it 'captures' the direct producers and does not allow them to freely engage in exchange."

However the conclusion which is drawn from this analysis, as it relates to the fishing industry, ignores the effect of its common property condition.

"He [the fisherman/producer] has become a dependent commodity producer. It is not a matter of the 'will' of the producer; he is compelled by the forces of centralization and concentration to specialize his production and take advantages of the most productive technologies."

(Clement, 1981:22 emphasis added).

As this thesis has attempted to document, the 'will of the producer' was not formed by capital, either in its 'unconcentrated' form in the 1893 to 1901 period, or in its concentrated form which immediately followed. Throughout both these structural situations, and to the present time, the 'will of the producer' to catch salmon and to invest in more efficient capturing technologies has been formed by his independent status in relation to the common property state of the resource. In this regard the description and analysis of the processing sector, in this thesis, has only served to illuminate the strategy by which canneries sought to insure delivery of the raw resources. The degree of which the processing sector achieved a centralized and concentrated form, and thus effected "the nature of exchange" (Clement, 1981:11), is largely irrelevant in explaining the economic condition and motivational will of the fishermen/producers.

Because of its common property condition, long run economic rents available from
fishing are generally reduced to zero (Scott Gordon, 1954:132). Thus the economic power that a concentrated structure affords the capitalist sector, in the long run and in an unlimited entry fishery, is only to significantly effect the degree to which fishermen are free to choose the processor to whom to sell their catch. While in the short term a competitive processing structure can yield higher payments to fishermen, as processors compete in price to attract deliveries of fish, in the long run these higher incomes in turn attract more participants into the fishery. The effect of the heightened producer competition is likely to be lower individual catch levels, and certainly the depression of fishermen's incomes as total supply increases. In echoing Michael Graham's (1943:155) 'Great Law of Fishing', Scott Gordon (1954:132) summarized his economic analysis by observing;

"By and large, the only fisherman who becomes rich is one who makes a lucky catch or one who participates in a fishery that is put under a form of social control that turns the open resource into property rights."

As reported in Chapter 3, Bell-Irving's assessment in 1893, of the repeal of licence limitation, was not confined to an appreciation of the extra 700 fishermen who would compete to capture the resource. He also thought it worth mentioning that the payment for this supply would be at a rate canners considered to be "a proper price".

The common property condition of the resource, which acts to depress long run incomes through excessive competition, has been argued in the thesis to have contributed to the development of unionism and militancy in the salmon fishing industry. This
development has been accompanied of course by demands for higher fish prices and also for individual entry restrictions. In the absence of entry restrictions, the winning of price increases acts as a catalyst for an increase in competition between fishermen, thus renewing the necessity to again agitate for higher prices. In these conditions union efforts for higher prices are continually subject to erosion by the very prospect of their success.

The prospect of economic rent becoming available from the fishery is the 'drawing card' for an increase in the number of participants wishing to make its claim. In this sense, in an unlimited entry fishery the effects of unionism are repeatedly subject to defeat.

This concluding chapter opened with a discussion of the capitalist extraction of surplus value of production, through the subordination of labour. The thesis, on the other hand, has argued that the motivation to adopt the independent commodity relations of production in the salmon fishery was to encourage production through competition. Under these relations the value of labour was depressed, but not through techniques of subordination. Rather, it was by the industry being free and encouraged to "produce so as to equate average revenue to average cost [long run average cost]" (Bell, 1972:155).

Given this structural situation, it is therefore not possible to theoretically locate the point at which competition among producers depresses price such to allow the creation of surplus value for capital.

To conclude on a pragmatic note, the broader question of why fisheries attract and retain labour is worth considering, given these conditions. Scott Gordon's (1954:132)
analysis is illuminating.

"Two factors prevent an equilibration of fishermen's incomes with those of other members of society. The first is the great immobility of fishermen. Living often in isolated communities, with little knowledge of conditions or opportunities elsewhere; educationally and often romantically tied to the sea; and lacking the savings necessary to provide a 'stake', the fisherman is one of the least mobile of occupational groups. But, second, there is in the spirit of every fisherman the hope of the 'lucky catch'. As those who know fishermen well have often testified, they are gamblers and incurably optimistic. As a consequence, they will work for less than the going wage."

One is reminded of the plight of the textile workers as examined in Chapter 2. When capitalists were successful in breaking down the entry restrictions to the textile trades, aided by technological innovations enabling the hiring of unskilled labour, the wage/price cutting which then ensued depressed workers' incomes to the level of starvation. Yet, as Thompson (1968:303) observed, the supply of labour was to "multiply so fast as to be one in the gate of another." Workers were presented with the simple choice of whether or not to work at all.

Fisheries which do not have limitations upon entrants, and which often exist in geographic areas offering limited alternative paid employment, face the same extremely low opportunity costs for labour, which in turn burdens the fishery with excessive competition. As mentioned in Chapter 4, it was precisely for this reason, and not animosity arising out of racial differences per se, which motivated the repeated demands by salmon fishermen to restrict entry to those of British citizenship.
Scott Gordon's second factor; the elusive expectation of 'windfall catches', operates to retain a labour force whose income may have seriously declined relative to other labouring incomes. The unwillingness to accept the rational dictates of economic logic is based upon the occasional lucky catch which rewards this tenacity. Wadel's (1972:116) analysis of the behaviour of Norwegian herring fishermen is characteristic of fishing industries centered around independent commodity producers.

"But many pursue herring fishing to the bitter end, and do not give up before being on the verge of bankruptcy. This seems to be related to the 'lottery' character of the herring fishery: there is always a chance of getting high catches even with a drop in the herring population. Herring fishing offers the only opportunity to rehabilitate completely in the course of a single season - if one is lucky!"

Thus in conclusion, it is in the light of this kind of commitment from independent fishermen to the industry of fishing, that one can appreciate the motivations of capitalist processors in adopting independent commodity relations of production in the early salmon fishing industry.
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