

**TECHNICAL AND PHYSICAL CONDITIONS, WORK ORGANIZATIONS,
AND CULTURE : THE CASE OF
PACIFIC COAST CANADIAN COMMERCIAL FISHERMEN**

by

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Technical and Physical Conditions, Work
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Pacific Coast Commercial Fishermen

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ABSTRACT

This dissertation is an exploratory case study of the technical and physical conditions of the Pacific coast commercial fisheries and the work organization, occupational community and work culture of the Greater Vancouver commercial fishers who are also owner-operators of commercial fishing vessels. The ensuing qualitative analysis of this group is based on approximately eighty-one intensive and unstructured interviews, approximately 150 hours of taped discussions, and extensive observations from two trips to the fishing grounds for the 1982 roe herring and salmon fishing seasons. These ethnographic data are then integrated into the relevant literature on commercial fishing and the sociology of work and occupations which tends to fall under the rubric of the Craft-Professional thesis.

The design of this study is exploratory; the mandate is hypothesis generation rather than confirmation. For expository purposes the research is presented in the following sequence. Chapter one presents the Craft-Professional thesis which argues particular physical and technical conditions of work are related to specific work organizations, occupational communities and work cultures. This is the organizing framework developed for the presentation of the collected data. A series of sensitizing concepts drawn from this perspective were used to examine selected western industrial commercial fisheries. This is followed by a deliberation on the technical and physical conditions of work in the Pacific coast commercial fisheries and the social organization of work, work culture and occupational

community of Greater Vancouver commercial fishers. These sections present the original data collected for this study. The style of reporting is literary and humanistic. These data are interpreted descriptively; illustrative quotations elaborate specific conceptualizations. The three remaining chapters examine the theoretical and methodological implications of this research. The final chapter lists the major hypotheses generated and draws some tentative conclusions.

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CHAPTER I

INTRODUCTION

The person who cannot abide feeling awkward or out of place, who feels crushed whenever he makes a mistake - embarrassing or otherwise - who is psychologically unable to endure being, and being treated like, a fool not only for a day or week but for months on end, ought to think twice before he decides to become a participant observer. (R. Wax, Doing Field Work)

The general purpose of this exploratory case study can be stated as follows: 1) to describe the physical and technical constraints of a particular work environment, 2) to describe the social organization of work associated with that productive process, and 3) to describe the work culture and occupational community of that work milieu. These questions are examined with reference to the commercial fishers who reside in the Greater Vancouver area.

Sociological studies on the fishery in Canada have tended to ignore these issues and instead have been concerned with the political and economic conditions. Anthropological studies, while concerned with culture in general, have tended to examine the fishery as only one element within a larger geographically and socially defined community. Outside of these two disciplines, other research into the fishery has come from economics, and here again the investigation has largely ignored the analysis of the content of the work and the day-to-day existence of fishers.

In contrast to these concerns, the problem of this study is the development of an accurate and detailed description of the

physical and technical conditions, social organization, work culture and occupational community of the fishers who earn their livelihood through commercial fishing primarily for salmon and roe herring along the Pacific coast and reside in the Greater Vancouver area.

At the time this investigation was initiated, there were no systematic investigations into the study of fishers in Canada from the fishers' perspective. Although an excellent discussion of the Hull fishers was available (Tunstall, 1969), this was not the case for the commercial fishers residing in the Greater Vancouver area. An understanding of the lives of these fishers had to be gleaned from research done in other areas, or conversely from the popular literature. Consequently, an empirical base and theoretical model which would enable more than a mere guess at a set of hypotheses was lacking. For this reason, the study took hypothesis generation as its prime goal. This type of research is exploratory, and qualitative. The style of reporting it is literary and humanistic. Further consideration of the methodology is available in Appendix A.

The hypotheses generated in this study were derived inductively from empirical observation (i.e., fieldwork as a participant-observer and interviews). Before fieldwork and interviews were initiated, a prior reading of literature on the fisheries was undertaken. Insights garnered from this review helped inform the construction of an unstructured interview schedule. While interviewing was in process the data were transcribed and coding began. As observations formed into

patterns they were coded into categories. While categories expanded and hypothetical relationships began appearing it became profitable to turn to the theoretical literature for sociological concepts, propositions and conceptual models. This literature review helped to order the data into a descriptive framework. In reviewing this literature a number of works touched on concepts and organizing themes which were compatible with the emerging patterns and categories in the data base. This literature was synthesized and compiled into what is labeled in this study as a Craft-Professional thesis.

The Craft-Professional thesis is implicit in a variety of sociological studies. It informs a significant number of important sociological studies such that it can be seen as a valid source of sensitizing concepts. Notable studies compatible with the Craft-Professional thesis would include: Mill's White Collar (1953); Lipset, Trow and Coleman's Union Democracy (1956); and Gouldner's Patterns of Industrial Democracy (1954). The common thread which links these otherwise diverse studies together is the argument that physical and technical conditions, work organizations, occupational communities and work cultures are interrelated.

The debate over the impact of technology on human organization is a recurrent concern. The controversy was rekindled in this century with the introduction of mass production technology and more recently with the entrance of computer technology on the political and economic stage.

From the days of Chaplin's "Modern Times", to today's concern over the potential of the silicon chip (CSE, 1980: 28), technology is variously conceived of as either a menace or the harbinger of a new humanism (Kroker, 1984). One view argues that technological developments are dependent upon, or caused by, the technical and physical constraints of production. In contrast to this, the second view insists that technology cannot be understood as an independent force but must be examined within the broader context of the social relations of production. In terms of sociological theories, marxist political economy is compatible with the second argument, and the Craft-Professional thesis with the first.

The Craft-Professional thesis is the topic of Chapter Two. This approach tends to view technology as a force which is dependent upon, or develops in response to, the physical and technical constraints of production. In this perspective, technology is seen as relatively independent of the social relations of production. A second important proposition associated with this approach is that craftsmen/professionals experience independence, autonomy and the freedom to determine the pace and timing of their work.

These and other peculiar conditions of craft work are in turn found to be associated with occupational communities and work cultures. Research in this tradition has tended to adopt a qualitative methodology. Workers studied have included: miners, printers, construction tradesmen, and professionals (e.g., professors, doctors, lawyers, and advertisers). These studies

suggest that craftsmen/professionals, due to the unique physical and technical conditions of their work, develop unique work organizations, form socially integrated occupational communities within larger urban and rural communities and experience vibrant work cultures.

Chapter Three goes on to apply the Craft-Professional model to describe the technology and work organization of ocean fisheries. First, it is demonstrated how fishing may be characterized by a consistent set of physical and technical constraints. These include: the common property nature of the resource, that fishing is a type of hunting, variability in harvesting cycle, separation of work and residence, social isolation, physical risks, and lack of clear cut control over the resource.

Following the above, studies which have examined the fishery in peasant level and modern societies are examined to describe how physical and technical constraints structure work in the fisheries along lines which have been defined as "production" rather than "socially determined". The chapter then turns to a comparative examination of those fisheries which previous researchers have defined as "modern". The fisheries described are those of the United Kingdom, Norway, and Newfoundland in the North Atlantic and, one study in the tropical Pacific, the tuna fishery out of San Diego, California.

These particular fisheries are presented because they are those most consistently researched as "modern" ocean fisheries, and the research is detailed and in sufficient depth to form the

basis of tentative generalizations on the organization of work in the fishery. The description of these fisheries provides further support for the hypothesis generated in this study that the unique technical and physical constraints of fishing influence the organizational structure of work in the industry. The industry, as portrayed in the research reviewed, is consistently found to be characterized by the relative absence of hierarchy, a diffuse rather than strict division of labour, and work groups which tend toward informal and personal relations.

Chapter Four turns to the description of the empirical evidence collected on the technical and physical constraints of commercial roe herring and salmon fisheries on the Canadian Pacific coast. The data are presented descriptively with reference to the Craft-Professional thesis. This conceptual framework is comprised of a series of sociological concepts and propositions. It was derived from empirical observation (i.e., fieldwork and interviews). The generalizations arising from the field observations were then further systematized with reference to the substantive literature on the fisheries. Topics include: type of gear, predominant species harvested, the area fished, and social organizational factors (e.g., recruitment, hierarchy, and the division of labour). This chapter concludes that fishing on the Pacific coast, as it was observed during the fieldwork and reported by Greater Vancouver commercial fishers during the interviews, is similar to the other fisheries examined in that the particular technical and physical constraints of production are associated with a relatively egalitarian and nonhierarchical

structure of work, a diffuse division of labour, and, informal and personal work relations. Chapter Five extends this qualitative analysis and describes Greater Vancouver commercial fishers with reference to the concepts of occupational community (i.e., sense of perceived community, self image, peer group evaluations, convergence of work and nonwork lives, sharing problems and experiences), the culture of work (i.e., acquisition of work related tools, apparel, jargon and joking behavior) as well as other factors which are often associated with occupational communities (i.e., job satisfaction and worker adaptation to and perception of dangerous and uncertain working conditions). Each of these conceptualizations is elucidated by a direct reference to remarks by fishers on the topic. These quotations, abstracted from the transcribed interviews and field notes, are illustrations and not intended as confirmatory evidence. This is an accepted methodological procedure in exploratory research and one which is logically incompatible with hypothethico-deductive methods (e.g., operational definitions, the specification of indicators as measures and analysis of variance, etc.). These sections, in contradistinction to such 'quantitative' approaches, explore the the subjective boundaries of the fishers' everyday lived experience through the description of their work culture and occupational community. Given this qualitative design, any generalizations or hypothetical relations seen as emerging from this interpretation of this data are tentative.

These two chapters draw on a wide range of evidence including eighty-one open ended and in depth interviews with commercial fishers who reside in the Greater Vancouver area (see: Appendix A, B, C, D), participant observation of the Pacific coast roe herring and salmon seasons in 1982, documents published in newspaper articles during the interview and observation period, and demographic data collected by the author while under contract with the Department of Fisheries and Oceans (DFO). The discussion in these two chapters takes a qualitative and 'literary humanistic' approach in keeping with the Craft-Professional thesis.

It is clear, upon examining the data, that it may not be sufficient to use broad structural changes as indications that a structure of work is developing in a particular direction. Instead, it is also important to ground theories in empirical research. Such "grounded" research has been valuable in a wide range of studies (e.g., neighbourhood, region, ethnicity, or gender relations). However, the use of "grounded" theory to understand the work milieu is of paramount importance. The work environment, and the cultures and communities which it may generate can be potential sources of social integration and change. As Brook and Finn (1977: 126) observed, the workplace is the material base of sectionalism "...in a labour market differentiated by industry, by variations among firms within industries, and by the division of labour within particular workplaces".

In particular, for the fishers who participated in this study, their work is much more than an economic activity, it is a way of life - an ethos! As Zulaika (1981: 60), in his study of the Spanish offshore trawler fishermen, remarked, "Being a fisherman implies a lifetime occupation that ... gets in your blood".

Chapters Six and Seven re-examine this observation in the light of the relevant literature. Chapter Six integrates the Craft-Professional thesis and the technical and environmental considerations (Chapters 2 and 3) with the substantive literature and collected ethnographic materials on the fisheries. Chapter Seven discusses the marxian political economy theory of the labour process and the persistence of the petite bourgeoisie in Canada in general and in the fishery in particular. The final section in this chapter discusses the political and economic context of the British Columbia fisheries. Chapter eight examines the contribution of this study in bringing to light a series of weakness found in the literature and the empirical application of these conceptual frameworks. As a guide to further, confirmatory research, some hypotheses generated by this exploratory case study are listed in this, the final chapter.

CHAPTER II

THE CRAFT-PROFESSIONAL THESIS

A nation can be maintained only if, between the State and the individual, there is intercalated a whole series of secondary groups near enough to the individuals to attract them strongly in their sphere of action and drag them, in this way, into the general torrent of social life. (E. Durkheim, The Division of Labour)

The Craft-Professional thesis can be found in three of the liberal arts disciplines. They are: the sociology of work and occupations (e.g., Blauner, 1954; Gouldner, 1954; Lipset, et al., 1956; Riemer, 1979, 1982, etc.), the anthropology of craft culture (e.g., Applebaum, 1981; Pilcher, 1972; etc.), and the culturalist approach of the new labour history (e.g., Palmer, 1983; Kealey, 1981; etc.). The emphasis in this chapter is on the literature from the sociology of work and occupations, however, some relevant studies from these other disciplines will also be reviewed.

The following will describe the Craft-Professional thesis. The underlying and unifying theme of these studies is a Craft-Professional perspective which places an emphasis on the technical and physical conditions, and, skill and organization of craft work as determinative factors in the productive process. A second consistent theme in this literature is that craft workers are said to exhibit occupational autonomy, are capable of resisting management control and display distinct occupational cultures and communities. A third consistency is the predominant use of qualitative methodology.

The broad concepts of culture and community are implicit in the Craft-Professional thesis. Therefore, prior to embarking on the exposition of the main argument, the following will discuss the meaning of these two terms as they apply to this perspective. Following this there is a brief discussion of the "ideal of the craftsman" as it is an underlying theme in the sociological analysis of work and occupations. Final sections describe the Craft-Professional framework and the sensitizing concepts: occupational community and work culture.

The definition of culture which informs this discussion is drawn from Geertz (1973: 5):

The concept of culture I espouse, and whose utility the essays below attempt to demonstrate, is essentially a semiotic one. Believing, with Max Weber, that man is an animal suspended in webs of significance he himself has spun, I take culture to be those webs, and the analysis of it to be therefore not an experimental science in search of law but an interpretive one in search of meaning. It is explication I am after, construing social expressions on their surface enigmatical.

The above definition directs researchers to the analysis of the "everyday lived experience" for the key to an understanding of culture. It emphasizes process over structure but negates the view of culture as a deterministic force. A similar approach is adopted by Cohen (1982). He argues that culture is exhibited and experienced in the mundane activities of the everyday life of community members. He argues (1982: 6) that culture, as lived experience, is expressed,

most frequently in the context of rather mundane circumstances: how to evaluate your neighbour's work in making a wheelbarrow; where, and in which tidal conditions, to fish for a particular

species, when to cut hay; how to tell a yarn. Mundane they may be, but they provide the dynamics in a community's social process.

Culture, according to Cohen, is the shared meanings held by the members of a community. These shared meanings, equivalent to Geertz's notion of "webs of significance", are expressed in common everyday life through the "use of language, the shared knowledge of genealogy or ecology, joking, the solidarity of sect, the aesthetics of subsistence skills" (Cohen, 1982: 6). The communities Cohen discusses are British Isles rural locales. However, his emphasis is on sociability rather than geography such that a similar analysis may be applied to professions, political parties, secondary associations, university departments, etc. (Cohen, 1982: 12-13). The fundamental idea to be garnered from this definition of culture, and by extension community, is that both are generated, maintained and dissolved in the process of social interaction. Understanding culture and community lies in discovering what 'it feels like' to be a member, and 'to belong'.

The definition of culture and community which is most appropriate to the conceptualization used in this study is similar to the position adopted by Cohen (1982: 9) in his explanation of the heterogeneity of the British Isles. He argues,

even within a state so tightly integrated by the media of power, economy, communication and mobility, the similarity of social forms - kinship, friendship, neighbouring and sect - in different places is more apparent than real. The forms acquire their significance from the meanings which their own members perceive in and attribute to them. We show here that these meanings are not generalisable to the British

Isles, nor to rural areas of the British Isles, nor to regions within those rural areas. They are highly particular. They indicate boundaries of commonality within which meaning is shared and communicated in idiom and social organization. They define those tiny spans of close social relationships to which people attribute their fundamental social 'belonging'. They indicate cultures - experiential worlds of meaning - and, in so doing, show Britain to be culturally heterogeneous to an extent rarely appreciated.

At least since Redfield (1930) developed the "folk urban continuum", the community has been a basic unit of analysis in anthropology in North America. In sociology, interest has tended to focus more on groups, organizations, and social structures. However, the concept of community has an illustrious history within the discipline. For example, Tonnies (1855-1936) first published his study Gemeinschaft and Gesellschaft in 1887. In this century, major community studies include: Street Corner Society (Whyte, 1943), Crestwood Heights (Seeley, et al., 1956), Outsiders (Becker, 1963), The Urban Villagers (Gans, 1962), Tally's Corner (Liebow, 1967) and Soulside (Hannerz, 1969). Currently, this tradition is represented in symbolic interactionism by the "Chicago and Iowa Schools" (Meltzer, et al., 1975). In Canada, this type of research was influential at McGill University with the arrival in Montreal of Carl Addington Dawson and later by Evert Hughes (Willcox-Magil, 1983). The concept of community is composed, in the most rudimentary sense, of two elements. One is geographical or territorial, the other is the implication of a social group and organization. Most research on community (Poplin, 1979) tends to emphasize the territorial notion, giving it precedence over the social. The

two factors are often mutually associated; however, they are not necessarily coexistent. In this study community refers to a culturally defined unit of social organization. This definition implies a sharing of common values, beliefs, goals, norms and a shared sense of identity. Poplin (1979: 19) describes this approach thus:

As a cultural variable, community sentiment involves, first, a sharing of common values, beliefs, and goals. These may arise from many sources, especially from the historical milieu out of which the community grew. These values, beliefs, and goals may of course be focused on many things. ... Likewise, as a cultural variable, community sentiment also involves norms; that is community members have a set of shared behavioral expectations to which they supposedly conform.

In sum, the Craft-Professional thesis is informed by these two concepts: culture and community. Culture is comprised of shared meanings which are expressed in everyday life through language, shared knowledge and skills, and joking. Community is comprised of the sharing of common values, beliefs, goals, norms and a shared sense of identity. Taken in concert these two concepts imply that the norms, goals and values of a community are expressed in everyday life through culture. This discussion will present the major findings and relevant contributions in the Craft-Professional perspective. It will be shown that the strength of this approach lies in the analysis of the structure of craft work and the ensuing insight into craft/occupational cultures. It will be argued that this type of analysis is necessary in order to fully understand the labour process. In

this regard Clement's (1983: 156) research on workers in Canadian society is instructive:

The fundamental notion that workers (and the petite bourgeoisie) resist the strategies of capitalists to dominate production requires a much more prominent place in Canadian political economy than it has had to date.

The first question to be answered is what is a craftsman? The following discussion will examine the 'ideal' of the craftsman, how this 'ideal' is utilized in empirical research, and finally, explain the relationship between craftsmanship and occupational community and work culture.

The Ideal of the Craftsman

The major issue of concern to researchers when adopting a Craft-Professional model is to explain the relationship between worker's subjective awareness and the structure of work. Given this objective this type of research is often irrelevant to those whose interests lie in marxist political economy. The disagreement between the two perspectives is described by Blauner (1964: 4):

A basic assumption of the present approach is the existence of critically different types of work environments within modern industry. These diverse industrial environments result in large variations in the form and intensity of alienation. Because of Marx's historical scope and polemical purpose, he stressed homogeneity of the capitalist mode of production. Since his goal was to analyze how its distinct property relations and technological base differed from feudal and socialist arrangements and worker's experiences he was not primarily interested in the diversity of relations between employees and sociotechnical systems within capitalist industry.

The Craft-Professional thesis is concerned with the culture of work in relationship to the variations of different work sites. In contrast, the political economy approach is concerned with objective conditions across historical periods¹. This is the basic distinction between the two approaches.

Both approaches, however, rely on a similar conception of the craftsman. Both take a relatively humanistic stance on the labour process, and begin from the premise that work is potentially both a creative and self-fulfilling activity. This relatively positive viewpoint assumes that work is an end in itself, as opposed to the negative approach which assumes work is a necessary evil - a means to an ulterior end.

The meaning of work is the topic of Tilgher's, Homo Faber: Work Through the Ages (1958). In a succinct narrative, he examines work as it has been conceptualized from the time of the ancients to the moderns. His synthetic interpretation demonstrates how work has been conceived: a curse (i.e., the Greeks), expiatory (i.e., the Hebrews), a means of charity (i.e., the early Christians), a duty, token of grace and means of salvation (i.e., Luther and the early Calvinists), to an obsession and the expression of humankind's inherent creativity (i.e., the modern viewpoint embodied in both the Craft-Professional thesis and political economy). According to Tilgher (1958: 71), in the idea of labor in modern times, we can see,

¹ This gap is beginning to be filled. A future section in this chapter examines this development which is occurring in the "new labour history".

truly for the first time in the history of the world...not as a single instance, but as the basic phenomenon of a whole civilization, the idea of work for its own sake--work for the sake of work--work as an end in itself. Such is the living and concrete reality of which the modern vision of life, centered around labour, is the reflection.

Tilgher's premise is that the conceptualization of work is the central organizing vision of society. Involved in this is the recognition that work is ultimately conceptualized as either a means to an end, or, an end in itself.

This dichotomy lies at the base of all discussions on work and each viewpoint takes a particular stance based on a specific interpretation of the nature of humankind.

The relatively pessimistic view is compatible with the various types of Protestantism which define work as an extrinsic activity to gratify some ulterior needs(e.g., salvation). In contrast, the optimistic view, which is compatible with both the viewpoints of marxist political economy and the "Craft-Professional" thesis, views work as inherently meaningful, and an expression of human potential. The expression of this potential is thought to be embodied in the expertise and activity of the craftsman's work. According to Mills (1953: 220),

the second important model of meaningful work and gratification - craftsmanship - has never belonged to the new middle classes, either by tradition or by the nature of their work. Nevertheless, the model of craftsmanship lies, however vaguely, back of most serious studies of worker dissatisfaction today, of most positive statements of worker gratification, from Ruskin and Tolstoy to Bergson and Sorel.

Mills' discussion in White Collar explicitly takes this 'ideal' as his point of departure for his discussion of changes in the American labour process in the 20th century. His portrait of the white collar world is bleak. A brief passage encapsulates his (1953: xviii) view:

Estranged from community and society in a context of distrust and manipulation; alienated from work and, on the personality market from self; expropriated of individual rationality, and politically apathetic - these are the new little people, the unwilling vanguard of modern society. These are some of the circumstances for the acceptance of which their hopeful training has quite unprepared them.

In terms of the marxist political economy approach to labour in Canada (e.g., Rinehart, 1985; Lowe, 1983), the labour of the craftsman is epitomized as the ideal representation of nonalienated labour. The ideal of the craftsman of the early nineteenth century is taken to be the model of what work should be like in opposition to the alienated state of what work is presently like. This ideal is clearly stated by Mills (1953: 220) in the following terms:

(1) There is no ulterior motive in work other than the product being made and the processes of its creation. (2) The details of daily work are meaningful because they are not detached in the worker's mind from the product of work. (3) The worker is free to control his own working action. (4) The craftsman is thus able to learn from his work; and to use and develop his capacity and skills in its prosecution. (5) There is no split of work and play or work and culture. (6) The craftsman's way of livelihood determines and infuses his entire mode of living.

This is the underlying ideal which informs the marxist political economy and the Craft-Professional theses. The discussion will now turn to the evidence which attempts to elaborate and support the Craft-Professional thesis.

The Craft-Professional Studies

One of the early studies in industrial sociology which implicitly draws on the conception of the ideal of the craftsman is Gouldner's (1954) Patterns of Industrial Bureaucracy. His analysis is of the technology and social organization of a particular work site. He investigates the variations in levels of bureaucratization between work environments. His discussion distinguishes between office, surface, and mine workers within the same factory. In his discussion, the mine workers are implicitly characterized as craftsmen. One section of his discussion compares the social organizational differences which exist between mine and surface workers. According to Gouldner, the physical and technical conditions between the work areas give rise to variations in hierarchy, spheres of competence, rules, and interpersonal relations. Gouldner (1954: 112) summarizes his discussion thus:

Several observable differences between the mine and surface have been presented: (1) The miner's resistance to hierarchical administration; (2) the lesser emphasis which they place on delimited spheres of competence; (3) their relative deemphasis on, and, in fact, positively hostile orientation toward some work rules; (4) the comparatively small degree of 'impersonalization' of super-worker relations in the mine.

These variations in the social organization of work are attributed largely to variations in physical characteristics, especially the existence of dangerous working conditions in the mine. Gouldner (1954: 136) sums up his discussion thus:

In summary, then, it has been noted that miners were members of stronger and more solidary informal groups, and that the greater cohesion of the miners was, in part, traceable to their distinctive working arrangements, and their more hazardous conditions of work.

Broadly speaking, Gouldner's contribution to the study of work settings is to underline the importance of how variations in physical and technical conditions relate to variations in the social organization of work. Specifically, he argues that the level of technology in the mine which is characterized by hand tool technology under dangerous working conditions, gives rise to a nonbureaucratic and nonhierarchical social organization of production. Finally, he argues that these conditions in turn reinforce the maintenance and creation of cohesive work groups and the development of specific work cultures (i.e., occupationally based values and beliefs). These work based cultures form the basis of the miners' identity and are viewed by Gouldner as a viable source of worker resistance to the initiative of management control of the work setting.

These are Gouldner's conclusions. However, there are possible alternative interpretations. For example, what impact do such factors as religion, marginality, or immigration have on this relationship? Also, it is important to keep in mind that since the time of Gouldner's research, mine workers have been subjected to increasing mechanization. This is explained by the

general process of capital accumulation and the tendency towards capital intensiveness. The shifting technological base of mines has been well documented in Canada by Clement (1983).

Nevertheless, the evidence also suggests that miners display distinct work cultures and political consciousness (deRoche, 1985; Kerr & Siegel, 1954).

Gouldner's thesis is seductive in its optimistic portrayal of workers' control, cohesion and work culture. The strength of this argument lies in Gouldner's presentation. The bulk of his argument is based on fieldwork in the mine and the data he presents are ethnographic.

The use of ethnography in sociology is associated with qualitative analyses. The ethnographic style is traditionally the domain of the anthropologists. Recent methodological debates in sociology have resulted in this method being increasingly seen as a viable tool. For a good discussion on the relevance of ethnography to sociology see M. Hammersley & P. Atkinson (1983).

Gouldner's rich descriptions allow us to succumb to his argument through the persuasion of the miner's own words. However, recent research has not borne out Gouldner's argument. Clement (1983) erodes our optimism by arguing:

Control over the labour process within the mines has been accomplished primarily by the introduction of capital-intensive technology and training methods which dramatically reduce workers' autonomy and bring them directly under the control and supervision of capital. While mechanization has been the principal expression of capitalization underground, in surface operations the change has been toward greater automation; that is, interdependent control systems which involve both electronic machines directing other machines to perform pre-

determined tasks, thus minimizing workers' intervention, and the centralization of reporting control information. Mechanization and automation have altered the skill levels of mining workers and made possible their loss of control over the production process.

This mechanization process is, according to Clement, an outcome of the struggle between capital and labour over the control of production. This is seen as to be especially relevant in the mining industry which is an historic centre of worker militancy. In Clement's view, the outcome of this struggle favours management and the imperatives of capital accumulation. But here again, such a simplistic interpretation is open to some criticism. In an analysis of miners in Cape Breton, deRoche (1985: 10) argues:

Technological change to break the workers' self organization though, is only an historical strategy under circumstances that permit capital to initiate and achieve such a move. Capital's hegemony is not always so secure that it can set the agenda, at least in the short run ... One theme that emerges in this paper is the problematic nature of this very process. This is one element of the model which asserts that technological change is a full-fledged process of micro-politics, a complexly determined and open-ended struggle.

The distinguishing characteristic of these two studies is that Clement's interpretation rests on a structuralist approach while conversely, deRoche's analysis draws on an interpretive, and ethnographic approach. This difference of approach may result in their alternative conceptions of the labour process. DeRoche's work rests on the interpretation of the miners' perceptions of their work history. Consequently, in contrast to Clement, the understanding of the relationship between

technological change and the response of workers is different.

DeRoche (1985: 11) states:

Miners disliked and fought many such changes not because they were short of insight or will but because they were so very well versed in the physical problems of mining, so very smart about the likely impact upon their concrete labour, so acutely cued to the potential impact on the workforce as a whole (such as the possibility of layoffs, slowdown in hiring), and so sophisticated about the goals of management and owners.

On the surface these studies provide conflicting interpretations of the impact of technological change on mine workers. However, this difference may be a result of the research methodology, of specific variations in the labour process of mining, or, a result of variation in theoretical perspective. For example, deRoche's study is interested in the interface between the miner's culture and technological change, while conversely Clement's analysis is primarily concerned with broad technological change regardless, or in spite of, the miners' interpretation and understanding of these changes.

The different perspective taken by each of these authors may be either a result of variation in level of analysis, or a result of specific variations in mining operations, or both. Worker control may have fallen away in some contexts (i.e., in the Sudbury mines which Clement describes), or may have advanced in other contexts (i.e., in the Cape Breton mines which deRoche describes). What this difference of opinion implies is that it is important to keep both levels of analysis in mind when investigating the labour process.

Workers adaptation to technology and mechanization is a complex process. While it is important to keep the broad scope of technological change in proper perspective, it is also important to retain some sense of the lived experience of workers. Knowledge of worker accommodation and/or resistance is necessary for a full understanding of the labour process. In other words, broad scale changes must be understood in relation to specific contexts. Seen in this light, deRoche's analysis has more in common with Gouldner's discussion. Both deRoche and Gouldner attempt to tie their analysis of the technology of the work setting to an understanding of the workers' subjective responses. Both these studies have in common an attempt to explain or interpret the miners' perceptions of the labour process. The important lesson from this is that the broad forces of technological change stem from economic imperatives but this process is not completely unidirectional. Change in the labour process occurs as a result of the interplay between structure and process.

The craftsmanship model is also applied to other types of manual workers besides miners. Printers are often viewed as representative of craft workers in modern industrial society. Printers, like miners have an occupational image which is well established. This image is linked to their high literacy rates during the early industrial period. Blauner (1964: 47) states:

The printer manufactures the printed word; he is therefore a link in the chain through which news, knowledge, and culture are transmitted. Traditionally he has been the most literate, the most highly educated, and reputedly the most intelligent of manual workers. Whether this is still true or not, many printers are exposed to intellectual stimulation in the course of their work, and many printers take a lively interest in the context of the materials they print.

Lipset, Trow and Coleman's (1956) study of the International Typographical Union (ITU) is perhaps the definitive case study of the social organization of printers. Kerr (1956) argues that the study of Lipset, et al. is also the first extensive empirical investigation into the issue of the distribution of power within private organizations, trade unions, and rank and file union membership. He (1956: vii) argues:

Concern over the distribution of power must be as ancient as the first social groups of men ... This interest has spread also from power relations between the state on the one hand and private associations and individuals on the other, to those between private associations and the individuals who belong to them - and particularly the trade unions and their members ... This is the problem on which Lipset, Trow and Coleman have focused their attention. They discuss it not in terms of society at large, but rather in terms of a single trade union. Their study is certainly the classic work to date in the general area of the internal process of a union and the definitive study perhaps for all foreseeable time, of the union under scrutiny, the International Typographical Union.

Lipset and associates explain the unique character of the ITU with reference to a series of factors over an extensive time period. The research was conducted in three phases. During 1950, Lipset investigated the history of the union through long exploratory interviews with union members. Phase two, 1951-52,

is the administration of a detailed questionnaire to a stratified random sample of the general membership (n=434), plus intensive "focused" interviews with political leaders (n=35), and, an additional 66 interviews with "chapel" (shop) chairmen. This extensive data collection procedure and preliminary research was made possible with assistance from Columbia University's Bureau of Applied Social Research. The third and final stage involved the data analysis during 1952-1954. The completed summary of the data analysis is published in Union Democracy: The Internal Politics of the International Typographical Union (1956).

Clearly, this research is extensive.

For the purposes of this dissertation one element of Lipset and associate's research is of particular importance. One of the major conceptual elements of their scheme is the notion of "occupational community". The existence of an occupational community among printers is considered to be one of the major factors contributing to the democracy of the ITU. The importance of this "community" became apparent to Lipset in the early stages of his investigation between 1943-49. He argues (1956: x):

During this period, a critical review of various hypotheses which had been put forward by students of trade-unionism to "explain" the ITU's unique internal political arrangements indicated that no one of the factors so far cited was adequate to account for the phenomenon. At the same time certain other factors in the union, occupation, and industry emerged which had been ignored, up to that time, but which appeared to better explain the persistence of the union's internal democracy than many of the factors cited earlier. Among these new elements was the large and important role played by the printers' "occupational community".

Support for this preliminary hypothesis was gained through exploratory interviews and qualitative analysis. However, their interest did not end with these early investigations. In fact, the notion of occupational community must be taken as one of the major organizing themes of his analysis.

The most significant theme of Union Democracy is an interest in the clubs, sports teams and formal and informal associations found among members of the ITU. This theme is consistent with Lipset's own overarching theoretical concern with the politics of "mass society".

Mass society theory is exemplified by the work of Kornhauser (1957). The focal concern in this tradition is the question of the nature of democratic society and how democracy is dependent upon the existence of a plurality of voluntary associations. These secondary associations function as interest groups and maintain social integration and the stability of democracy. This perspective is closely linked with a "Functionalist" stance in sociology. Lipset's work in Political Sociology assumes this position (see: Lipset's, Political Man). An evaluation of this approach is beyond the parameters of this discussion but an excellent critique of Lipset can be found in C.B. MacPherson, Democracy in Alberta (1953).

The thesis of the "mass society" theory is that secondary associations (e.g., trade unions) act as buffers between political elites (e.g., elected officials) on the one hand and the general public on the other. Lipset's concern with the ITU then, is as an illustration of a countervailing force to the

tendencies of mass society. For Lipset, the printers' occupational community is a major element in this process.

Lipset (1956: x) argues that his study,

attempts also to speculatively appraise the significance of our findings for a theory of trade unions and for political sociology more generally.

The issue as to whether Lipset achieved this rather ambitious objective is of secondary concern. This study takes a more modest point of departure and attempts an accurate description of the technical and physical conditions, work organization, work culture and occupational community of a particular work milieu. To achieve this end, Lipset's contribution to the analysis of occupational communities is instructive. According to the research of Lipset and associates the rise of occupational communities is related to extensive social relations among printers both on and off the job. The researchers attribute the rise of occupational communities to occupational prestige, job satisfaction due to intrinsic factors (i.e., craft pride), irregular hours and shifts, and night work (i.e., social isolation), a long apprenticeship, and marginality in the occupational structure (i.e., being neither unskilled nor professional workers).

Blauner (1964) following Lipset, set out to investigate the relationship between the structure, technology and the social organization of work. Borrowing directly from Lipset, Blauner defined the printing trades as exemplifying the craft form of production. His (1964: 5) thesis is an,

attempt to show that the worker's relation to the technological organization of the work process and to the social organization of the factory determines whether or not he characteristically experiences in that work a sense of control rather than domination, a sense of meaningful purpose rather than futility, a sense of social connection rather than isolation, and a sense of spontaneous involvement and self-expression rather than detachment and discontent.

According to Blauner, printing is a craft form of production. The three characteristics of printing as a craft are: minimal amount of standardization (i.e., variability in work tasks), low levels of mechanization, and high levels of handicraft or hand tool production. Five other factors leading to this classification are: relatively underdeveloped technology, traditional and nonbureaucratic social structure, small plants, nonhierarchical chains of authority, and union control over the labour market and working conditions. According to Blauner (1964: 7),

a result of these factors, printers have a nonalienated relation to their work, which again recall the craftsman of preindustrial times.

Blauner's discussion is concerned with demonstrating the low levels of "alienation" among printers. He argues this with reference to the high degree of worker control printers experience (i.e., lack of powerlessness), low levels of job specialization and rationalization (i.e., lack of meaninglessness), high levels of craft identification and social integration (i.e., lack of social alienation), and, strong sense of self-esteem (i.e., low self-estrangement). His notion of low worker self-estrangement has four elements: work is intrinsically interesting, work utilizes and develops personal

skills and resources, work is an end in itself rather than a means to an end, work infuses personal identity. The similarity with Mills' description of the 'ideal of the craftsman' is striking. In contrast to Mills, who takes these elements to be an ideal, Blauner argues that these conditions exist among printers.

Blauner's discussion concludes with his comparison of printers with pre-industrial craftsmen. He argues that printers are craftsmen, or have craftsmen attributes, and that this in turn distinguishes printers from the majority of 20th century workers. This status is derived from craft technology, favourable economic conditions, and powerful work organizations. In turn, these engender freedom and control in the work process which is a source of social commitment, involvement and self-identity. For Blauner (1964: 7), the printer is an anachronism and the,

prototype of the non-alienated worker in modern industry, he can provide a useful reference point with which to compare the situation of workers in a number of different settings.

These empirical studies suggest that craftsmen, due to the unique structure of their work, form socially integrated communities within the larger community and enjoy participation in unique occupational cultures. Blauner's discussion of printers is an elaboration on Lipset's investigation of the membership of the ITU. For Blauner the printers' lack of social alienation is expressed through extensive formal and informal associations. Both authors agree on the existence of strong occupational communities among these workers.

Blauner and Gouldner's research also have similarities. Both researchers, along with Lipset, argue that work organization and worker autonomy are related to the level of technology. Blauner's study places such an emphasis on technology that he can be seen as taking a "technological determinist" view. The technological determinist position is summarized by Low-Beer (1981: 405):

Technology and social structure produce consciousness and behavioural outcomes in a relatively deterministic way, a view of technology as a liberating force with objectively determined direction of development, and the extrapolation of current trends of economic development and industrial organization without sufficient theoretical analysis of the mechanisms underlying these changes.

This position is clearly stated by Blauner (1964: 6):

The most important single factor that gives an industry a distinctive character is its technology.

Blauner argues that automation will create more challenging jobs. He relates different forms of productive techniques to variations in the organization of work which are then viewed as relating to varying levels of alienation. Blauner defines alienation as social-psychological².

Blauner defines alienation as the lack of control over work, inability to attach meaning to work, the lack of integrated work groups, and the loss of a sense of self-fulfillment in work. Lack of control is defined as powerlessness. The loss of meaning is defined as meaninglessness. The lack of integrated work

² The concept of alienation in the social sciences is amorphous. For a good discussion on the multiple uses of the concept see: Ludz, 1976: 3-37.

groups is defined as social alienation. The loss of self-fulfillment is defined as self estrangement. He then compares four different types of technology: craft (i.e., printing), machine-tending, assembly-line, and continuous process, in relation to the five components of "alienation": powerlessness, meaninglessness, social alienation, and self-estrangement. He argues that worker alienation is lowest in craft and automated industries and highest in mechanized industries. In this sense, Blauner's thesis is compatible with the Craft-Professional perspective.

Blauner's thesis is that production develops through a series of stages from craftsmanship to mechnization to automation. The level of alienation varies over time. Graphically it takes the shape of an inverted U-curve. Low alienation occurs in the crafts and automated industries while high alienation occurs in mechanized industries. According to Blauner, the new automated technologies upgrade the workforce, require fewer unskilled workers, provide promotions based on skill and workers are given increased responsibility and freedom³

Blauner's conception of automated industries is delineated by specific characteristics. He argues that an automatic equipment operator's job involves freedom of movement between various work stations, and, control over the pace and timing of tasks, and the quality of the product. In light of these factors, he argues that workers in automated plants have high

³ In this regard Blauner's work is compatible with the post industrial society theories of Galbraith (1978), Bell (1973) and Drucker (1962).

levels of autonomy. In sum, according to the thesis these workers experience a sense of control, meaning, self-fulfillment and social integration in their work. In other words, workers in automated industries are not alienated!

A critique of Blauner by Rinehart (1975: 134-138) seriously challenges the adequacy of the thesis. Rinehart argues that workers in automated industries remain, despite Blauner's argument, alienated. He argues that workers in continuous process industries merely watch dials and that this activity does not involve skill, as Blauner would have us believe. Skill, according to Rinehart, requires both task execution as well as conceptualization.

Rinehart also queries the notion of worker control over the methods and quality of work which Blauner develops. Rinehart argues that continuous process operators do not directly control production or processes, nor do they control quality. Quality is not controlled by the monitor, it is controlled and prearranged by office and technical staff. Also, the control over the process of work reduces to discretion over the timing of pre-set tasks and not the actual job.

In his critique of Blauner, Rinehart poses a rhetorical question: how many possible ways are there to read a dial? The difficulty with the query is that it glosses the importance of interpretation and judgement involved in the monitor's job. The operator's job requires some skill (i.e., technical expertise and judgement) and control, otherwise these workers would be replaced by machines. Therefore, while skill and control in

automated industries may be less than Blauner claims, Rinehart may also be stretching his point.

Other difficulties relating to Blauner's thesis question the impact of computer technology on automated industries. It is possible that the use of computers may reduce the responsibilities of automated equipment operators and monitors. It is also difficult to assess the relationship of the overall content of skill required by automated industry workers. Also his assumption of progressive stages leading towards automation is dubious. Finally, Blauner's contention that technology determines the organization of work has come under scrutiny.

Hill (1981:) argues:

Other evidence suggest that two of the intervening variables, occupational distribution and size of plant, are not necessarily related to technology. Recent experience shows how the occupational composition of firms, which historically may have been determined by technology, have often survived changes in productive technique. Printing and docking are both examples of industries where organized labour has succeeded in preserving traditional occupational divisions and rights to certain jobs, despite technological changes which should have changed those occupational distributions if Blauner's arguments were correct.

Taking these limitations into account Blauner's thesis provides two important directives for research into the organization of work. First, his study has pointed out the significance of worker control in the productive process. This importance of control is one of the most consistent findings in industrial sociology. In his survey of studies of worker participation in decision making, Blumberg (1968: 123) observes:

There is hardly a study in the entire literature which fails to demonstrate that satisfaction in work is enhanced or that other generally acknowledged beneficial consequences accrue from a genuine increase in worker's decision making power.

The second directive is the importance he assigns to the empirical analysis of particular work sites. Together these directives suggest that there is a relationship between control, the formation of cohesive work groups, and the existence of occupational cultures. Further, these characteristics are most commonly associated with craft workers.

Occupational Community and Work Culture

The concept of occupational community in the sociology of work implies more than geographical proximity. The core of the concept implies identity, shared meaning, and a sense of belonging to the group. The emphasis is on explicating the perceived sense of shared identity of community members. As in most social groups (e.g., marriages, university departments) there may be internal divisions. However, these are not seen by members as sufficient or necessary conditions for community dissolution. Consequently, the community of these occupations has precedence.

Surrounding the original study of the ITU (Lipset, et al., 1956) a number of other studies have employed the notion of occupational community. It is implicit in Kerr and Siegel's (1954) analysis of strike activity among isolated blue-collar workers in logging camps, mines, and on board ships. They (Kerr & Seigel, 1954: 193) argue:

The industrial environment places these workers in the role of members of separate classes distinct from the community at large, classes with their share of grievances. These individuals are not members of ubiquitous middle class but of their own class of miners or longshoremens; and they do not aim to be more considerate of the general community than they think the general community is of them.

LeMasters (1975) examined the social community of skilled workers whom he defines as the "aristocrats of labour". The focus of his discussion is on the working class tavern as a source of worker community. He concludes that for the workers in his study there is a vibrant and distinctive culture. Some authors have explicitly dealt with occupational communities. Pilcher (1972), Applebaum (1981), and Riemer (1982) have presented interesting qualitative research on blue collar occupations (e.g., longshoremens, and, construction workers). Some researchers (e.g., Goode, 1957) have developed theoretical frameworks for the study of the social organization of professionals. Others have countered with corresponding empirical studies (e.g., Becker & Carper, 1956; Gerstl, 1961).

Goode (1957) implicitly assumes the Craft-Professional model to explain the function of community among professionals.

According to Goode (1957: 194):

Characteristic of each of the established professions, and a goal of each aspiring occupation is the "community of the profession".

His discussion of professionals defines occupational community as comprised of eight characteristics: a sense of identity, shared common values, tenure, common language, explicit role definitions, control over recruitment, power of applying sanctions, and clear bounded community membership. Gerstl (1961:

44) in his study of advertisers, dentists, and professors isolated five determinants of occupational communities: opportunity for on the job interaction, participation in occupational associations, off the job interaction, and felt occupational prestige and commitment.

More recently, Salaman (1980) has argued that occupations have implications for identity and attitudes, and the production of occupationally based cultures and ideologies. He further proposes that occupational cultures have important political implications in that "consciousness of shared, working class destiny is replaced by occupational consciousness" (Salaman, 1980: 36). Watson (1980) agrees that occupational communities have political implications but stresses that such communities signal the potential positive value of work and the relevance of work to social and political context.

Following Goode's original lead, Applebaum (1981: 136) found justification for the theory of occupational community among construction tradesmen. Applebaum (1981: 100-105) investigated four components of occupational communities: self-image, peer group evaluations, integration of work and nonwork lives, and, sharing of problems and experiences.

Further research has been conducted on the theory of occupational communities among longshoremen (Pilcher, 1972), and construction workers (Riemer, 1979). Riemer argues that an occupational culture is tied to the specific physical and technical conditions of work as well as the social factors of interaction, socialization and the creation of an occupational

identity. According to Riemer occupational cultures include beliefs about how work is carried out, as well as attitudes about proper behavior, costume and language.

One important and consistent theme that recurs throughout this literature is the importance of identity and the identification with an occupation through the process of socialization. Becker and Carper (1956) in a study of science graduate students, argue that the development of an occupational identity, through the learning of occupational skills, is one of the most significant features of the adult socialization process.

In sum, the concept of occupational community, first developed by William Goode, has been utilized in sociology by Lipset and his associates, Blauner, Riemer, and in anthropology by Pilcher and Applebaum. It has been utilized in studies of craftworkers and professionals. According to Pavalko (1988: 27-28),

this aspect of work has received considerable attention and needs to be included as a separate dimension. At the heart of the idea of occupational community is the presence of a sense of common identity and common destiny. It also includes the idea that occupational groups have distinctive subcultures. The shared norms and values of the subculture serve to reinforce a sense of common identity as well as to control the behavior of members. While these norms operate primarily to shape and control work behavior, they may also extend to nonwork life as well and influence the choice of leisure activities, political orientations, and a wide range of interpersonal relationships. ... The community is of course a social entity rather than one that exists in spatial and geographic terms.

He goes on to argue that this community exercises control of members through occupational socialization and selective

recruitment. It is important to underscore the point that this community is a social entity and implies common identity, shared norms and values and a distinctive culture. It does not necessarily imply a lack of intra-group conflict.

The foregoing review of the Craft-Professional thesis has examined some of the sociological literature pertaining to occupational cultures and communities. The emphasis has been on American literature. The notion of occupational community was derived from the study by Lipset et al. of the ITU. The overall aim of this review was to illustrate how the concept of occupational community can be utilized in the study of professionals and craftsmen.

The broad concern was the question of how a shared culture and sense of community are related to the labour process. Specific attention was paid to the Craft-Professional thesis where community and occupation are considered analytically valuable. Researchers from this persuasion argue that one important way of grasping the complexity of social class is through an understanding of community, neighbourhood, occupation or even work site. The interface between class and community is a topic of considerable importance. Brook and Finn (1978: 125) argue:

One of the defining characteristics of sociology, and its sub-disciplines, has been its overwhelming concern with questions of social class, particularly in relation to the working class. Its major encounter with the located experiences of working class people has been conducted through the medium of community studies.

There are, however, other disciplines which have displayed an interest in the relationship between class/occupation and culture/community. Outside of sociology, in folklore and labour history there is evidence of some interest in these issues. The following will briefly review some of these studies.

An interest in the culture of workers is represented in folklore by Laba (1983) and McCarl (1978). Laba's (1983) work is concerned with the extent to which occupational narratives infuse leisure activities. McCarl argues that the understanding of occupational folklife through the analysis of occupational narratives "holds great promise for increasing our understanding of the rules underlying communication processes in general" (1978: 145).

Laba in a similar vein suggests that occupation is a source of identity among urban residents. He argues that occupational narratives are "the active organization of objects with activities and outlook to produce a group identity in the form of a distinctive way of 'being-in-the-world'" (1983: 16). His discussion of a Vancouver resident, Joe, a west coast fisherman, explains how Joe "works through his identity in the informal flow of, and formal folkloric performance within, conversation" (Laba, 1983: 19).

The idea that work creates a culture, which in specific instances may become an effective force of opposition against the imperatives of capital and the initiatives of management, has recently become a prominent research theme for a new breed of historians. This group of social historians, the "new labour

history" as their research is referred to, draw their inspiration from E.P. Thompson.

Thompson's The Making of the English Working Class (1963) is perhaps the seminal work in this tradition. Bercuson (1981: 98) in his critical review of the Canadian new labour history argues:

The new labour history in Britain tends to be explicitly Marxist and is almost solely concerned with exploring the culture of the British working class. E.P. Thompson ... was the pioneer and most important work which synthesized much of what had been written about English workers prior to the 1830s. Thompson's emphasis on culture as a unifying factor for the working class, and as one pole in a dynamic relationship between culture and activity ... set the pattern for subsequent work in the field. ...In Canada, new labour historians stand in the middle but so far tend to lean to the British experience. They study working-class culture for the explanation and definition they believe it offers in the Thompson sense...

The basic premise of the new labour history, is that history can and must be understood from the "bottom - up". In Canada, this approach places an emphasis on the explanation of the culture of early industrial craftsmen.

This research into labour history is richly textured and brings to life the culture of early industrial craftsmen. This approach to social history closely approximates ethnography or what Geertz labels "thick description". In Geertz's (1973: 10) words:

What the ethnographer is in fact faced with except when (as of course, he must do) he is pursuing the more automatized routines of data collection - is a multiplicity of complex conceptual structures, many of them superimposed upon or knotted into one another, which are at once strange, irregular, and inexplicit, and

which he must contrive somehow first to grasp and then to render.

The descriptions of the new labour historians bring to light the cultural ambience of the worker/craftsman and show how culture is closely related to changing work structures and technologies. In the Canadian variant of the new labour history the life of 19th century craftsmen is vibrantly brought to life. As Heron (1980: 8) explains:

In recent years labour historians have been increasingly fascinated with the lively history of the skilled stratum of the nineteenth-century working class, the artisans. Often colourful, articulate, tough-minded men, these craftsmen were not only leading actors in the emergence of a working class in the early years of the century; when they gave up their self-employed status and entered the "manufactory" to practise their craft under one employer's roof, they brought with them the accumulated traditions, values, and institutions of the preindustrial era. A vibrant artisanal culture therefore continued to thrive in late nineteenth-century industry, where the skills of these men were indispensable to many sectors of production.

In these writings there is a remarkable portrayal of the early days of Canadian industrialization, and an excellent glimpse of early industrial culture. An example of this tradition is Palmer's (1983: 85) discussion of Joe Beef's tavern:

Joe Beef's was established by Charles McKiernan, an Irish Protestant ex-soldier of republican attachments. Patronized by day labourers, his canteen was an environment for the crude and the rude: it was furnished with rough tables and chairs, had a sawdust-covered floor, was adorned with skeletons, bottles of preserving fluid containing mementos of interest, and housed a fantastic menagerie of monkeys, parrots, wild cats, and bears. Beer was sold for five cents, and some of the bears were known to consume 20 pints of beer daily. Their lack of sobriety, as well as the client's rowdiness, made Joe Beef's

Canteen an object of attack by crusading reformers, newspaper editors, and temperance advocates. As part of a criminal subculture that existed on the margins of working-class life, it was a well-known rendez-vous for the "sun fish and wharf rats" of the harbour, and was much frequented by youth gangs.

This tradition, more than any other attempts to examine the 'webs of significance' of work culture. Here, workers' active participation in the changing structure of the labour process is clearly recognized and brought to light. The importance of this approach is articulated by Kealey (1981: 89-90):

Indeed it is now necessary to locate class conflict and class struggle at the centre of modern Canadian history. The complexity and heterogeneity of the Canadian working-class experience does not deny the existence of a working class. It may have prevented it at times from mounting significant challenges to capital's hegemony; it has never, however, eliminated the class tensions that arise between the working-class's attempts to make capitalism less oppressive and capital's own needs. And this is precisely the utility of cultural analysis. Recognizing that the degree of homogeneity and distinctiveness of class cultures is very variable, it directs our attention precisely to the terrain of analysis which is crucial in our examination of working-class history. It does not of necessity demand a militant, united, battling working class, although often that is what it finds. Indeed it must explain the elements of working-class life that hinder the emergence of stronger resistance to capital hegemony.

The object of this study is to follow the lead of the new labour historians and depict the cultural mosaic, the webs of significance which unite fishers as a group. Fishers on the west coast of Canada are an anachronism in contemporary Canada. In a sense, they closely resemble the pre-industrial craftsmen. These workers, unlike the majority of Canadian workers, experience high levels of independence and autonomy in gaining their livelihood.

Summary and Conclusions

This review has examined some of the sociological literature on the labour process. This literature was labelled the Craft-Professional thesis.

This chapter discussed the concepts of culture and community, a brief history of the concept of the ideal of the craftsman, how this ideal is used in empirical research to analyze and explain the diversity within the labour process, how the physical and technical constraints of craft work are often associated with specific forms of work organizations and how these variations are often related to craft cultures and occupational communities. Most of the Craft-Professional literature reviewed deals with manual or 'blue collar' workers (e.g., miners, printers, longshoremen, and construction workers) or professionals (e.g., doctors, lawyers, scientists).

This study is concerned with the commercial fishers who reside in the Greater Vancouver area of British Columbia and fish primarily for salmon and roe herring along the Pacific coast. It will examine the technical and physical conditions, the social organization of work and describe how this work is couched in and represented by a vibrant work culture and occupational community. This exploratory and descriptive account will be organized and examined with reference to the sensitizing concepts derived from the Craft-Professional thesis. This study will describe this industry with reference to physical and technical conditions (e.g., gear types, species of fish, fishing season, and fishing trips, fishing areas), the division of labour (e.g., crew

composition, remuneration, organization, tenure), social relations of work (e.g., recruitment, work group cohesion and cooperation and conflict among and between crews), occupational community (e.g., sense of perceived community, occupational identification, self image, peer group evaluations, convergence of work and non-work lives, sharing of problems and experiences), work culture (e.g., tools, apparel, jargon, joking behavior), job satisfaction (e.g., supervisors, participation in decision-making, integrated work groups, prestige) and fishers' responses to uncertainty and dissatisfaction (e.g., sense of insecurity, accidents, danger and death).

The purpose of this study is to describe how a particular segment of the Canadian labour force, the Greater Vancouver fishers who earn their livelihood by fishing along the Pacific coast and who, as representatives of a rather anomalous social class, construct a particular image of themselves and their society.

The question which informs this research is how technical and environmental conditions of production are reflected or acknowledged in the cultural sphere? The emphasis is on the description of a particular work culture and occupational community. The importance of this type of analysis is aptly stated by Brook and Finn (1977: 126):

Here locality and workplace become extremely important. The material base of sectionalism resides in a labour market differentiated by industry, by variations among firms within industries, and by the division of labour within particular workplaces. While in general terms geographically distinct groups of workers have similar sorts of problems, the problems of any specific group are particular and unique. They are bound in time, revolve around particular people, and are confined to a particular workplace or section within it.

The following chapter, a review of the Canadian and international literature on the organization of work in the fisheries, will examine the technology and organization of work in this industry as depicted in the anthropological and sociological literature. The upcoming discussion is provided as a base from which to comprehend the position of Canadian Pacific coast fishers. This literature is primarily concerned with specifying the structure of work in the fisheries and largely ignores the culture of these workers.

CHAPTER III

TECHNOLOGY AND ORGANIZATION: THE FISHERIES

Whenever I find myself growing grim about the mouth; whenever I find myself involuntarily pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos get such an upper hand on me, that it requires a strong moral principle to prevent me from deliberately stepping into the street, and methodically knocking people's hats off - then, I account it high time to get to sea as soon as I can. (H. Melville, Moby Dick)

Drawing on Chapter Two, a discussion on the organization of work in contemporary society, this chapter is informed by the,

Craft-Professional proposition - some industries and occupations exhibit particular technical and environmental constraints which generate specific work organizations and display unique work cultures and occupational communities.

Before proceeding to the descriptive exploration of the physical and technical constraints, work organization, occupational community and work culture of the Greater Vancouver commercial fishers, it will be instructive to examine these factors as they have been found to exist in other fisheries. This will further clarify the applicability of the Craft-Professional thesis as a model to describe the Canadian Pacific coast commercial fisheries. The following will examine the technical and environmental constraints and social relations of production in the fishing industry across a variety of national contexts.

Some of the sociological and anthropological literature on fishing has examined the process of work and the interface between fishing as a form of subsistence and the community in which it is located. In these studies, the uniqueness of fishing

is explained as related to some or all of the following: a lack of control over the resource (i.e., competition for a "common property" resource¹, and the mobility of the resource), separation of work sphere from residence, marginality or isolation from the broader social context (i.e., fishing communities tend to be isolated in coastal areas), and exposure to risks and uncertainty. These, or similar notions, have been applied by a number of researchers in a variety of different contexts. The following will review some of this literature.

There are two topics to be discussed in this chapter. One is the comparison of the differences in the physical conditions between fishing and agriculture. The second is an examination of the physical, technical conditions and the ensuing organization of fisheries work in selected locations (i.e. Great Britain, Norway, Canada and the United States of America). The objective is to describe the environmental and technical constraints of production in the fishery and demonstrate how these in turn are reflected in the organization of work.

¹ The theory of "common property" of fishery resources originated from an early dispute between the Netherlands and the United Kingdom over fish stocks in the North Sea (Grotius, 1609/1916). Essentially it argued that access to ocean fisheries was unlimited because the seas were not open to occupation, could belong to no one and were therefore common and not private property. The common property issue was brought to the forefront by H. Scott Gordon (1954) regarding management of the Canadian fisheries. A detailed elaboration of this theory is outside the scope of this study. Interested readers may turn to Copes (1980, 1986) for further discussion.

Physical Constraints: Fishing and Agriculture

There are a number of differences between the physical constraints of fishing and agriculture which may help explain the alternative development. There are four distinctive features of agriculture. In agriculture there are separate periods of plowing, planting, and harvesting. Second, each of these is a separate season and there are determinant periods of idleness between the seasons. Third, crops are generally harvested approximately once or twice per year. Fourth, these infrequent and periodic harvests must supply subsistence needs during both idle and productive times, as well as resources for the next planting season.

There are at least three distinctive physical features associated with fishing which are absent in agriculture. In fishing the relation of effort to return is different. Plowing and planting in agriculture are similar to the preparation of boats and gear in fishing. However, while fishers may periodically forgo these activities and still attempt to harvest the resource, this is not a similarly viable option for the farmer. The fishing season (i.e., harvesting) can be divided into separate days of production. Each day the fisher may harvest the resource and receive a possible return. In fishing, the day is a unit of time which may yield a measurable profit. But, the success of fishing may vary daily, weekly, or monthly. There are also periods where fishing is not possible (e.g., because of variability of fish stocks and inclement weather). Second, ocean fishing introduces a number of unique physical

constraints which are not evident in agriculture. Fishers² are cut off from home, and there are a greater number of physical risks associated with fishing. Third, ocean fishers are often tied to isolated coastal communities and must be away from their home communities during the working day which results in a detachment from other social groups.

These, then, are the basic physical conditions which distinguish agriculture from fishing. The following discussion will illustrate how these physical conditions are associated with particular work organizations in peasant level agriculture and fishing and in modern ocean fishing.

In the Norrs' (1974, 1977 and 1978) analysis, modern fishing is distinguished from peasant fishing by the adoption of motor power for propelling boats and hauling nets. Essentially, this distinction is consistent with Udy's 1959 and 1970 data where he defines non-industrial societies as those which do not burn fossil fuels. This distinction is in line with many anthropological studies where "peasant" society involves the use of draft animals and wind and water power and "modern" society is defined by the utilization of the burning of fossil fuels for energy (e.g. White, 1959). Norr and Norr (1974: 277) provide this explanation of the distinction between peasant and modern societies:

² In this study the term fisher will be used to replace fishermen. Whenever the literature cited refers specifically to fishermen the term will be retained. Also, fishermen or fisherman will be used in the ethnographic chapters when it refers to fishers of that gender.

Societies and work techniques can be distinguished according to their level of technological development. In differentiating societies, three broad groupings are generally recognized....In primitive societies, hunting and gathering activities are the basic source of energy. In traditional or peasant societies, sedentary agriculture prevails, often utilizing draft animals and wind and water power as well. The burning of fossil fuels is the basic energy source for modern societies. Technologies, and the demands they make on social organization, are fundamentally different in complexity at these different levels.

The following discussion will rely on the above distinctions. These definitions are heuristic and not analytical. Current research into peasant societies involves sophisticated and complex distinctions which are beyond the scope of this discussion. For example, Thorner (1968: 503-502) argues:

Studies of peasantry in different places and different eras have been made by historians, sociologists, economists, anthropologists, and other scholars, all of whom use a wide variety of definitions and concepts. Some writers have employed the term "peasant" to characterize entire societies; others have dealt with the peasantry as a part society within a larger whole. Prevailing practice includes analysis of peasant behaviour. At the levels of whole social systems, nations, sectors, villages, households, and individual cultivators.

In their comparative study of peasant level fishing and agriculture, Norr & Norr (1974: 229) examine the effects of the physical constraints on the organization of work. They examine "...eleven communities in six culture areas ... a sample of nineteen agricultural village studies were also examined to provide a basis for comparison with agricultural work organization". They argue that there are three physical factors which distinguish peasant-level fishing from agriculture:

separation of workplace from residence, lack of control over the resource³, and greater risks and uncertainty. In turn, they argue, these technical and environmental constraints give rise to specific authority relations and a unique form of distribution of rewards. They argue that in peasant level fishing, the authority and rewards of those in control are curtailed, and, the social and economic distance between labour and owners is relatively small. They (Norr and Norr, 1974: 248) summarize their discussion thus:

Ocean fishing is a striking example of the degree to which power and rewards derived from control of the means of production can vary in response to technical and environmental factors. Ocean fishing in peasant societies involves greater teamwork and closer coordination of tasks, sharper separation of workplace from home, and greater exposure to physical risk than does agriculture.

Following up on their original research, the Norrs (1977) re-examined Udy's (1959 & 1970) data on 357 work organizations in 125 nonindustrial societies in six culture areas⁴. They confirm

³ This lack of control over the resource in the fishery means that fishers unlike farmers share relatively open-access to a mobile and variable resource. This lack of harvester control has been seen as one cause of the "common-property" problem (Copes, 1978, 1980, 1986). See ahead for a brief discussion of this issue with reference to the Pacific fishery in Chapter Five.

⁴ The six culture areas are: Africa, Cricum-Mediterranean, East Eurasia, Insular Pacific, North America, and South America. Udy's (1959) work utilizes the scheme employed by G.P. Murdock, "World Ethnographic Sample", American Anthropologist, 1957, 59: 664-687. Udy drew his data from the Human Relations Area Files, Harvard. Murdock, in the introduction to Udy's monograph proclaims, "...the author's sophistication in theory and method, and at the same time offers substantial encouragement to all social scientists interested in cross-cultural research".

their earlier argument that the three physical factors associated with fishing (e.g., lack of clear cut control over the resource, physical risks, separation from home and land during the work day) result in a work organization which is defined as "production determined rather than socially determined" (Udy, 1970).

According to Udy (1970) the demands of the social context on work organizations may result in one of two possibilities. Work organizations may be either socially or production determined. In socially determined work organizations, work relations are defined by social roles external to production, i.e., outside of the work sphere and integrated into the larger social unit. He (Udy, 1970: 15) argues:

A typical example of a socially determined work organization would be a family unit doing agricultural work in a society in which kinship roles, among other things, prescribe such work. Similarly, a work organization recruited by a forced labor system wherein work appears as part of a political obligation would likewise be socially determined.

In contrast, in production determined work organizations, work relations are conditioned by technical and environmental constraints. He (1970: 10) argues:

Production determined work organizations are not expected to consider the relationship between technology and organization structure, on the one hand, and the social setting on the other as part of the work process itself. These relationships may be ignored entirely or may be looked upon as giving rise to problems over which requirements of production determined work take precedence.

In other words, socially determined work organizations are strongly influenced by the social setting whereas production determined work organization are conditioned by the physical demands of production. According to the Norrs, in peasant societies fishing tends to be production determined to a greater extent than farming.

In this sense, if peasant level ocean fishing is production determined, then it should be more responsive to the technical and physical demands rather than the wider social context. The Norrs argue this is the case. They (1974: 249) state:

Despite their location in highly complex peasant societies in which the prevailing work organizations are socially determined, the fishing work organizations we examined are production determined. The technical and environmental constraints of ocean fishing have a stronger effect on work organizations than do the constraints of the social setting.

According to the Norrs' analysis, agriculture is more socially determined, while fishing tends to be more production determined. Thus, fishing is more resistant to the effects of social setting and the organization of work is geared to the tasks of production. They further suggest that under these circumstances, the importance of workers vis-a-vis the controllers of capital increases in response to the requirements of skill, teamwork and interdependence of work groups.

In 1978, the Norrs extended their analysis to the technical and environmental constraints exhibited in modern ocean fishing. The data base they draw upon is significantly smaller than in their earlier study and limited to the North Atlantic. Based on

ten ethnographies carried out in six areas (i.e., Newfoundland, Shetlands, Sweden, New England, England, and Norway), for three gear types (i.e., gillnet, trawl, and purse seine), they find further support for their original conclusions. They conclude that the physical constraints of fishing continue to exert a considerable impact on the organization of work in the fishery. This type of work organization increases the autonomy of workers and results in rational administration and a reduction in the levels of hierarchy. They (Norr and Norr, 1978: 169) state:

Like fishing at other societal levels of development modern ocean fishing incorporates recruitment for skill and compatibility, an emphasis on achievement and performance, specificity, lack of administrators, de-emphasis of formal authority distinctions, consultation across status levels, crew involvement in decision making, and absence of hierarchy. The technical and environmental constraints common to all fishing encourage teamwork and equity among workers.

Research by the Norrs (1974; 1977; 1978) provides clear insight into the possible sources of the unique characteristics of fishing. The next section will comparatively examine the work organization of fishing in a variety of contexts to further establish the validity of these claims.

Comparative Examination of Modern Ocean Fishing

In their study of modern ocean fishing, Norr & Norr (1978) found a series of technical and environmental constraints that resulted in a consistent pattern of work organization that led to worker autonomy. The physical and technical constraints of the fishing industry are: "exposure to physical risks, uncertainty,

separation of work-place from residence, difficulty of maintaining clear-cut control of productive factors, and the need for teamwork, skill and reciprocal coordination" (1978: 165). These constraints were found to be related to an increase in the importance of labour and the power of workers. In general, they argue the pattern of work in the fisheries to be characterized by 'rational administration and a nonbureaucratic organizational structure'⁵.

The organization of work in the fisheries was found by the Norrs to incorporate "recruitment for skill and compatibility, an emphasis on achievement and performance, specificity, lack of administrators, de-emphasis of formal authority distinctions, consultation across status levels, crew involvement in decision making, and absence of hierarchy" (Norr & Norr, 1978: 169). Additionally, the authors discovered, "workers maintained control of productive factors even in the face of increased levels of capitalization" (Ibid).

There is however, an important qualification to this. When modern ocean fishing reaches a level which could be considered "industrial fishing", (e.g., offshore trawling), the costs of ownership and the demands of technical services may be beyond the

⁵ The terms 'rational administration and nonbureaucratic structure' are borrowed by the Norrs from Stinchcombe (1959). Rational administration refers to economic and technical standards where recruitment and remuneration are based on skill, participation and achievement. Nonbureaucratic structures are nonhierarchical and administrators take an active part in the process of production.

reach of most individual fishermen⁶. In such cases, these conditions no longer hold. Wadel (1972) in his study of Norwegian trawling argues that fishermen can retain control at this level with the help of governmental assistance.

Copes (1986: 15) has argued that "industrial" type fishing is not necessarily the most efficient method of harvesting. He states:

There are, however, two important reasons why one may expect that small-scale fisheries will remain a strong and essential component of the fishing industry. In the first place, small-scale fisheries give the most effective access, or the only effective access, to many fish stocks that are located in shallow or confined waters, or that are specifically vulnerable to small-boat fishing gear. In the second place, the owner operator form of entrepreneurship that is common in well-developed small-scale fisheries offers considerable economic advantages. The owner-operator has a very high incentive to bring in the best catch possible and to maintain his vessel and equipment in the best possible condition. Under conditions of good biological and economic resource management of inshore fish stocks, including restraints on aggregate fishing effort, small-scale fisheries can be both highly productive and highly profitable.

The next section of this chapter will discuss the physical and technical constraints and work organization of specific fishing industries in Newfoundland, Great Britain, the Norway, and the United States of America. These areas are selected because they are comparable to the areas investigated in the Norrs'

⁶ The concept of "industrial fishing" used here is from Copes (1986: 6) who states these fisheries "...are usually conducted by profit-oriented companies, who will withdraw, or at least fail to replace their vessels, if catches fall to the point where they sustain operational losses". In other words, industrial fishing involves the capitalization and the formal subordination of labour.

research. Further, all of these areas are located within western industrial societies. Topics include recruitment, the division of labour and the delegation of authority, gear type, and fishing area, species caught, length of fishing trip and season.

The following discussion describes the physical and technical conditions and work organization of the Newfoundland inshore, mid-water (i.e., nearshore and midshore) and off-shore fisheries with reference to species of fish, fishing gear, crew size and recruitment, fishing trip and season, hierarchy, the division of labour and ownership. This review is presented to demonstrate the utility of the Craft-Professional thesis as an organizing framework to describe the fishery in this area.

The remainder of this chapter is a summary of some of the relevant cross-national research on fisheries. What is important to keep in mind is that the observation of the exploitation of fisheries resources brings to light a series of commonalities across national contexts. In particular, it will be seen that the organization of work in the fisheries is conditioned by specific physical and technical constraints which give rise to a unique organization of work.

The Newfoundland Fisheries

Some sociological and anthropological studies of Newfoundland fishing are included in a series of community studies which were conducted during the 1960s and early 1970s. These studies are concerned with the analysis of the "outports" which are small, littoral, fishing communities which dot the Newfoundland coastline. Because fisheries are not the primary concern of the

researchers, the data on fishing are limited and often inconsistent. However, at this stage, this body of research remains the single most important source of insight into the social organization of fishing in this area. This research was conducted under the auspices of the Institute for Social and Economic Research, Memorial University, St. John's Newfoundland.

According to these studies, during this period, Newfoundland fishing was carried out in three different areas: inshore, mid-water (i.e., nearshore and midshore), and offshore. The type of gear varied with the sphere of fishing: gillnets, handlines, stationary shore seines, mobile beach and bar seines, and traps in the inshore area; gillnets and longlines in the mid-waters; and trawling in the offshore⁷. Cod is the predominant fishery. Nemec (1972) and Faris (1972) found that in the Newfoundland 'outports', 'fish' is synonymous with cod⁸. Faris (1972: 27) found:

In 'Cat Harbour', when men speak specifically of "fish", they mean only cod fish. Thus a man who catches only lobster or salmon is not a fisherman but a 'lobster catcher' or a 'salmon catcher'.

Since World War II the inshore cod fishery has declined in importance. And, today many other species are also harvested such that it is no longer the case that fish is synonymous with cod. There are, for example, other fisheries exploited in the inshore

⁷ Today, longline gear has largely been replaced by gillnets. Also, today, the distinctions are more refined and include: inshore, nearshore, midshore and offshore.

⁸ Following a convention adopted in this literature, single quotation marks are used to refer to local terminology and double quotation marks indicate quotations from published sources.

areas such as lobster, salmon, squid, herring, caplin, and mackerel.

The following discussion on the Newfoundland fisheries is divided into two sections. The first section deals with the inshore and mid-water (i.e., nearshore and midshore), fisheries; the second section is concerned with the offshore fisheries.

Inshore, Nearshore and Midshore Newfoundland Fisheries

The size of crew varies with the sphere of fishing and the type of gear. In the salmon and lobster fisheries each man fishes alone (Faris, 1972: 110). The inshore cod fishery utilizes gillnets and handlines with crews of from one to four men (Nemec, 1972: 14; Stiles, 1972: 37), and, traps with crews of from four to seven men (Faris, 1972; Firestone, 1967). In the Fogo Islands, McCay (1979: 164) describes the mid-water (i.e., nearshore and midshore), longliner crews as comprised of from four to six men, and Stiles (1972: 37) found four to five men crewing on longliners from 'Island Harbour'.

The longliner originally specified the use of longline gear. It is also a size classification. Newfoundland longliners are "decked vessels between 35 and 65 feet long" (Sinclair, 1985: 2). Today, longliners may utilize a variety of gears: trawl, gillnets, or seine. They operate in the inshore and mid-water area. According to Clement (1984: 14) the mid-water fishery occupies,

an intermediate location between inshore and offshore fisheries is a recently developed near-shore or mid-shore fishery. These boats include herring seiners ...; shrimp, crab and scallop boats; groundfish draggers; and longliners (using both longlines and gillnets).

Longliners primarily exploit the mid-water region. They combine a variety of gears and in this sense are relatively new compared to the traditional inshore gillnet and trap fishery or the offshore trawl fishery. Sinclair (1985: 2) reports that the first of the longliners were launched in 1963 by Port au Choix skippers on the Gulf coast of the Northern Peninsula. Between 1956 and 1976 Parsler (1981: 237) found the number of longliners to increase from forty-one in 1956 to 557 in 1976.

The length of fishing trips varies with regard to the area fished and the type of gear utilized. Inshore fishers return home every evening, and often twice per day. The mid-water fishers may return home daily as in the inshore fishery, or may stay out from three days to one week (McCay, 1979: 169).

According to Britan, the fishing season begins in the spring and continues until Christmas. On the north coast it begins in June and ends in November; on the south coast, which is ice-free, it may continue all year (Copes, personal communication). After this time there is a lull in fishing activity and fishers participate in other economic activities, e.g., logging, preparation of gear for the next season, and family and community affairs (Britan, 1979).

One of the most common bases of recruitment to fishing crews in mid-water and inshore fishing is kinship, in particular, the male agnatic bond (Britan, 1979; Faris, 1972; Firestone, 1967; McCay, 1979; Nemeč, 1972; Stiles, 1972, 1979). For example, Nemeč (1972: 17) found 56 percent of fishing crews in St. Shotts were based upon agnatic ties.

In Newfoundland outport society, the male agnatic link, and the patrilocal extended family are complemented by the 'crowd'. Stiles (1972: 44-45) defines the 'crowd' as any group of people coming together for a specific purpose, but most commonly, it refers to the fishing crew. Schwartz (1974: 22) suggests the term 'crowd' is variously defined in Newfoundland communities as based on one or a combination of kinship, neighbourhood, friendship, common age and life experience, and the fishing crew. The importance of 'crowd' membership in the recruitment to fishing crews has been documented by McCay (1979) for the Fogo Islands, Martin (1979) for the Fermeuse area, and in the past it was found to be important in St. Brendan (Britan, 1979).

The pervasiveness of the agnatic based fishing crew and the 'crowd' in the outports has diminished. Britan argues that the impact of the national political economy of Canada on the Newfoundland outports has led to a deterioration of the importance of the 'crowd' and with it the loss of the agnatic fishing crew.

Research by Stiles (1979: 199) confirms this trend. He suggests that patrilocality may still structure community life, but there is little evidence of its continued impact on the recruitment to fishing crews. Instead, according to Stiles (1979), fishing crews are more commonly "corporate dyads". He argues that boat owners in 'Island Harbour' may prefer to recruit non-kin to counteract the effect of men using the agnatic link, "as a license to avoid permanent crew responsibilities" (Stiles, 1979: 202).

Further research confirms the breakup of family crews in the inshore fishery. However, the lack of kin based fishing crews is related to specific factors. Faris (1972) in his study of 'Cat Harbour' suggests there are two causes of the disappearance of kin based fishing crews: first, agnatic scarcity; second, conflicts between brothers, and brothers' wives.

Kinship, however, is still considered to be an important basis of recruitment to Newfoundland inshore fishing crews. In their review of the literature, Andersen and Wadel (1972a: 147) concluded even "the simplest fishing technology described in this volume requires a crew. A striking feature of these crews, especially the smaller ones, is that they are predominantly family crews".

In sum, the significance of kinship in recruitment to fishing crews in the Newfoundland outports is not clear cut. While some researchers argue it remains important others see it in decline. Therefore, it is impossible, given the literature cited, to draw a consistent pattern. At most, it is possible to state that kinship and the 'crowd' at one time may have been the most significant recruitment criterion but at this time it is affected by other considerations. Kinship then may be a preferable form but one that is conditioned by external factors.

There is a series of regularities associated with the division of labour in Newfoundland inshore fisheries. First, there is very little role differentiation among crew, although there is always one skipper. Second, in the inshore and mid-water fishery, there is a three layered status hierarchy based upon

economic criteria. These criteria are the ownership of boats, gear, engines, and contribution to fishing expenses. There are three status groups: skippers, crewmen (who are shareholders), and crewmen who are sharemen. Skippers are always owners (except in the offshore fishery), shareholders are most commonly agnatic kin and often full partners, and sharemen are nonkin and have no capital investment.

In general it can be stated that authority, the chain of command, and the process of decision-making are poorly defined in the Newfoundland inshore and mid-water fisheries. In St. Shotts, according to Nemec (1972), the role of skipper is related to an egalitarian form of authority and decision-making. He states, "among a significant minority it is very difficult to know whether there is any skipper at all from the point of view of decision-making" (Nemec, 1972: 16). Stiles (1972: 39) also found weak authority relations and informally defined work roles. Stiles suggests that any crewman may at times take control of the engines and steering, and share in the decision of where, when, and how to fish. This pattern of egalitarianism was also found by Faris in his investigation of 'Cat Harbour'. According to Faris (1974: 104), "the status of skipper carries no real authority however, no matter who fills the position ... it was usually the less accomplished sharemen who decided such basic issues as when to haul (the cod traps) and when to come in".

Philbrook (1966) in his study of Nipper's Harbour, and Schwartz (1974) in his study of 'Northern Harbour' found interaction among crew members to be affective rather than

instrumental. Philbrook (1966: 93) argues that the fishing crew develop into intimate human relationships in response to the tensions derived from working in a unpredictable environment. Schwartz further argues that fishing crews develop social relations which extend beyond the work sphere. He suggests that fishing together forms the basis from which other activities accrue and that members of the fishing crew often become close friends.

The importance of affective ties among fishing crews, was also found in the St. Shotts fishing community where the statement "I fish with my brother" is explained by the imperative of the affective bond between brothers which is "culturally prescribed, and seasonally reaffirmed in the fishery" (Andersen & Wadel, 1972: 150).

In specific instances authority may be clearly defined. Firestone (1967: 157) found that among trap fishers in Savage Cove, authority rested clearly with the father or eldest brother. McCay (1979: 164) found longliner skippers to have a large measure of authority. In this mid-water fishery the author found, "authority resides in the skipper, but there is little role differentiation within the crew" (1979: 164). In both of these cases the variation in pattern may be attributed to particular circumstances.

First, traps and longlines require the largest crews and this may stimulate the propensity to hierarchy and increase the authority of the skipper. Second, in both communities it may be that the patrilocal extended family continues to exert some

influence on social organization and fishing crews. It is also possible the larger crew size may affect the development of hierarchy only when other factors are also present. For example Savage Cove trap fishermen are day fishers. This would encourage greater community/fishery integration and the potential for fishing to become socially determined rather than production determined. In the case of Fogo Island longliners, the situation is somewhat different. In this content, longliners were introduced as an innovative technology in 1968. McCay (1979: 164) argues:

Longliners are modern in that their use implies specialization in fishing per se, rather than traditional combinations of fishing and fish processing. Their technical features permit exploitation of a wider range of fishing grounds and species than the inshore cod fishery, making them more adaptable to changing markets and resource availability. Furthermore, they represent a shift from a largely passive inshore fishery, dependent upon the arrival of migratory cod and salmon stocks, to an active nearshore fishery, hunting any and all marketable fish species available for as long as weather and sea conditions permit.

The recent increase in the use of longliners, with their larger size and greater technical sophistication (i.e., utilizing a variety of techniques and equipment) may, in this case, have facilitated the development of greater authority vested in the skipper's position. Whichever the case may be, it is clear, that both types of fishing involve larger crews and both types involve greater authority of skippers.

The lack of status differentials among crewmen in the inshore and mid-water fisheries has important implications for the social

organization among fishing crews. A vaguely defined division of labour is attributed to the development of solidarity among the crew. Stiles (1972) and McCay (1979) both argue that interpersonal conflict is minimized among crews where there are limited status distinctions. Stiles argues that the minimization of distinctions is so pervasive among Newfoundland inshore fishers that a preoccupation with equivalence emerges. Stiles, (1972: 42) states:

'Island Harbour' crews appear to be preoccupied with equivalence: in action, they attempt to parallel the movement of other boats to the maximum degree possible, in words, they try to undercommunicate the existence of real differences in performance between boats (or between individuals).

This egalitarian ethos may also be related to fishing strategy. It is often the case that fishing fleets will congregate in small areas of the ocean. While it is true that some areas are indeed more productive than others, it is also the case that beyond a certain number of participants there come diminishing returns to effort. However skippers often remain in a congested fishing areas because of a fear of breaking away from the group. McCay suggests, "a skipper is disinclined to strike out alone, realizing the high risk of failure and being unwilling to impose such upon his crew ...despite a possible advantage" (1979: 169).

Crew solidarity is often an indicator of successful fishing operations. There are two interrelated reasons why this may be so. First, a cohesive crew is more efficient. But more important, such a crew may restrict its interaction with other

crews and consequently limit the amount of inter-crew communication. Stiles (1972: 42) suggests that, "crews operate as if they were socially insular; that is they try to control the outward flow of information". This control of information is characteristic of the exploitative strategies of commercial fishing.

In the inshore and mid-water areas, fishers attempt to attain the greatest amount of information on fishing locations in order to have a competitive edge over other fishers. One method of attaining this is through constant surveillance of the actions of other fishers on the fishing grounds. A second strategy is eavesdropping on the radio telephone (i.e., Citizen's Band, or Very High Frequency). For example, Stiles (1972) has clearly demonstrated the importance of radio communications in the Newfoundland inshore fishery. Martin (1979: 291) argues, "the only way a fishing unit can ensure a successful catch is to compete by hoarding information concerning techniques for maximally exploiting fishing locations".

Finally, if a cohesive crew is socially insular, and this crew is more successful in fishing, then it may be that the lack of cohesion and high inter-crew mobility are related to poor fishing. Indeed, Andersen found that "relatively young and inefficient crews (are) characterized by high turnover and lower earning" (1972: 130). In other words, boats with high production have stable, and relatively insular crews.

As mentioned earlier, the type of gear and fish caught varies with the area fished. The offshore fishery has distinctive

characteristics. The following will discuss the Newfoundland offshore fishery.

Offshore Newfoundland Fisheries

In the offshore fishery the predominant species are cod, haddock, flounder, and redfish (Andersen, 1979). The size of crew varies with the sphere of fishing. Offshore, the trawlers will have a crew of from twelve to eighteen persons. Trawler trips range to about ten days.

Recruitment to the offshore fishery is characterized by a somewhat different pattern. In contrast to the inshore and mid-water fisheries the offshore fleet is non-fisher owned and operated. A direct result of this is that recruitment is not commonly related to kinship.

According to Andersen, trawler crews are based on employer-employee relations, where crew members are most often formally recruited and are casual workers. Crews for the offshore trawlers are often recruited from the rural areas traditionally associated with the inshore fishery. He argues (1979: 325) that trawler crews are,

heirs to an almost century-old deep-sea fishery occupational "tradition". Economically, until recently they were contracted as "coadventurers" on a trip-by-trip (hence, "casual-worker") basis where their remuneration was largely, if not solely, determined by a share of the landed value of fish taken by their vessel alone. At this writing, most have been unionized and are better thought of as "employees", though the share system of remuneration prevails.

As with most offshore fisheries, the ability of a skipper to get a good crew is based on his standing in the overall catch

statistics. The recruitment of crews to the offshore fleet is based upon instrumental criteria, i.e., the skipper's reputation, rather than, as in the inshore fishery, kinship.

In the offshore fishery a greater specialization in the division of labour pertains. On board a Newfoundland trawler there are approximately four levels to the hierarchical division of labour. At the top is the skipper. He is responsible for the selection of crew and in command of the fishing operations. Below him is the working crew which is divided into three occupational areas. The deck consists of one mate, a bosun and six to eleven deckhands; in the galley, one cook; and two or three engineers in the engine room.

In contrast with the inshore and mid-water fisheries, in the offshore trawler fleet there is a clear division of labour and definition of rights and obligations. These differences can be accounted for by two factors. First, the offshore fishery has larger crews, and stricter definitions of work areas (i.e., the deck, the galley and the engines) and, work tasks (i.e., deckhands, cooks, and engineers). Second, the trawler fleet is based on employer-employee relations, rather than the more informal, kinship based relations of the inshore and mid-water fleets.

The offshore fleet is, according to Andersen (1972), characterized by a strict division of labour and delegation of authority. The subordination of the crew is absolute. Although he may delegate authority in specific instances the skipper is invested with the full responsibility of the boat and crew.

Whitaker (1974) argues that authority and an efficient chain of command are paramount to the safety and efficiency on board offshore fishing vessels. To generalize from these studies, it appears that the necessity of hierarchical relations and the efficiency of the crew are demanded by the conditions of work on board offshore trawlers.

From the literature reviewed, it is possible to draw the following conclusions. First, among the smaller fishing operations of the inshore and mid-water fisheries, there exists a vaguely defined division of labour and authority structure. Second, in the offshore, trawler fleet, there exists a clearly defined division of labour and authority structure which is related to the employer-employee relations and the larger crew size.

In sum, this review of the literature suggests that fishing in Newfoundland is carried out in three areas: inshore, mid-water (i.e., nearshore and midshore), and offshore. The codfish is the mainstay of the fishery, however other species are also harvested. The type of fishing gear utilized varies with the specific environmental niche. The predominant types of gear are the gillnet, longline, trap and trawl. However there are others such as the handline, and beach and bar seine. The variation in area fished and type of gear corresponds with variations in length of fishing trip, method of recruitment to fishing crews, size of crews, division of labour and level of bureaucratization (i.e., hierarchy).

In general the inshore and mid-water fisheries are characterized by day fishing, informal, kinship based recruitment, smaller crews, affective and egalitarian relations, and a diffuse rather than strict division of labour. In contrast, the offshore fisheries have trips of approximately ten days in length, contractual-formal recruitment, larger crews, greater hierarchy and, a task specific division of labour, and more authority invested in the skipper's position.

The following table is a summary of this discussion.

Table 1

Physical and Technical Conditions and Work Organization
in the Newfoundland Fisheries by Area Fished

<u>Physical / Technical Conditions and Work Organization</u>	<u>Area Fished</u>		
	Inshore	Mid-Water	Offshore
Species of Fish	cod, lobster, herring, caplin squid, mackerel salmon	cod, herring, mackerel	cod, haddock flounder, sole redfish
Gear	Gillnet, trap beach & bar seine handline	longline gillnet	trawl
Crew	1 - 7 salmon & lobster (1)	4 - 6	12 - 18
Trip	day	1 - 7 days	10 days
Season	June - Nov. (north) or all year (south)	June - Nov. (north) or all year (south)	all year
Recruitment	kinship	kinship	nonkin formal
Hierarchy	some	some	yes
Division of Labour	skipper, crew	skipper, crew	skipper, engineer, bosun, cook, crew
Ownership	fishermen	fishermen	nonfishermen

Other Fisheries

Detailed anthropological and sociological descriptions of the technology and social organization of fishing in other areas are relatively scarce, and the data reported are inconsistent. The most extensive research conducted on fishing and fishing communities is concerned with the North Atlantic region (e.g., Hull and the Shetlands in the U.K., and Norway). However, the tuna seinermen of San Diego, are the subject of an excellent study by Orbach (1977). The following discussion will review this literature with regard to the technology and social organization of work in these fisheries. This review is provided to further substantiate the relevance of the Craft-Professional thesis as an organizing framework for a description of the fishery.

The most extensive description of British trawler fishers is Tunstall's (1969), The Fishermen: The Sociology of an Extreme Occupation. On British trawlers the crew numbers twenty men, and trips are approximately three weeks in length. According to Tunstall on board the trawlers, although the faces may change there are many consistencies. He states, "...on a trawler ... there is a social atmosphere of inevitability, of a changeless hierarchy and specialization of jobs" (Tunstall, 1969: 134).

On the British trawlers, as with the Newfoundland trawlers, the skipper has full responsibility for the boat and crew. Directly under him are the mate, bosun (i.e. the boatswain), chief and second engineer. These positions are followed by the radio operator and the cook. The working crew on

the deck is the lowest rank of the hierarchy. The status distinctions are demarcated by specific tasks but also are reflected in the sleeping arrangements. The deckhands sleep in the fo'c'sle (i.e. the forecastle), while the mate, bosun, engineers, and cooks will have separate sleeping quarters and eating arrangements depending on the design of the ship. The skipper always has a separate cabin.

Research on the Shetland Islands fishers provides the following information. According to Goodlad (1972) herring is either the traditional drift net (i.e., gillnet) or the purse seine. As with the Newfoundland fisheries, the technology and social organization of the fishery varies with the type of gear and the fishing area.

The gillnet fishery is from April to August in the inshore and mid-water area (i.e., 3 - 30 miles offshore). The boats range from 65 to 75 feet in length and have a crew of nine or ten men.

The season lasts approximately eighteen weeks, and trips are daily. Fishers leave their harbour in the late afternoon and fish through the night for approximately 16 hours. They fish all week, except Saturday and Sunday.

The crew includes a skipper, engineer and deckhands. This total crew is comprised of three or four shareholders, and six or seven sharemen. As in other inshore and mid-water fisheries there is a diffuse, rather than strict division of labour.

In contrast to this, the Shetland purse seine fishery involves "greater role and authority specialization" (Goodlad, 1972: 75). The seine fishery is a year round endeavour and the boat and gear can operate twenty-four hours per day. The boats range in length from 100 to 170 feet in length. The crew is comprised of approximately twelve persons. The fishery is capable of operation up to 500 miles from shore. The division of labour is between skipper, net boss, engineer, and the working crew. However, while there are such distinctions, crew integration remains important. Goodlad (1972: 75) states:

The skipper and crew must understand the operation of each piece of equipment in the vessel that fit together to form a totally mechanized technique by comparison with drifting. They must also understand every decision and order of the net boss and react immediately.

In a study of Scottish east coast fishing communities, Baks and Postel-Coster (1977) report similar findings. They isolate four types of fishing: creel, light trawl, seinenetting, and trawling. Of these, light trawling and seinenetting are the most common fisheries. In light trawling the boats range from 40 to 60 feet, the crew is from 3 to 5 men, and the ecological area is up to 60 miles offshore, the predominant species are herring and whitefish, although prawns and sprat are also taken.

According to Baks and Postel-Coster (1977) the Scottish purse seiner fishers on the east coast operate boats from 60 to 80 feet, the crew is of 5 to 8 men, the areas fished are the coastline of Scotland, Shetlands, and Norway. The predominant species are

whitefish during the winter and herring during the summer and autumn.

The seiner in the Scottish east coast fishery is a relatively new type of boat and gear. According to Baks and Postel-Coster, seinenetting replaced trawling when stocks declined and the fishers traditional European markets altered. The authors argue that this new technique provided the following answers to this situation. They (1977: 33) state:

Now fishing was possible in smaller boats with modern equipment (diesel engine); fewer crew members were needed. The expenses were less because seiners were best adapted to changing conditions. This was a dual purpose boat in summer and autumn herring were caught by drifting; the rest of the year the men went seining after whitefish.

However, the authors argue that economic considerations were not the sole motivating factors. Instead they suggest personal relations aboard were of "great importance" and that seining "enabled fishing communities to continue a way of life in which primary relations prevailed while still allowing fishermen to use modern equipment" (Baks & Postel-Coster, 1977: 33). The introduction of the seine procedure was seen to be facilitated by the preference for informally rather than formally recruited crews. The researchers (1977: 37) argue that,

of great importance was the maintenance of a more personal type of relationship aboard; larger boats in the past required more crew, which led to more formal contractual relations.

The creel fishery, utilizing boats less than 20 feet and crews of one to two men, is of limited economic importance.

According to Baks and Postel-Coster the seinenetting fisheries of eastern Scotland are characterized by informal relations, and the formality of the larger trawler crews has disappeared. Further they (1977: 30) suggest on board seiners:

The crew at sea forms a group of equals under the leadership of the skipper with a definite common goal: to get a maximum of production in the shortest possible time.

Similar conditions exist in the fishing community studied by Wadel (1972). According to Wadel, the Norwegian fishery displays characteristics similar to other purse seine fisheries. In Norway, the boats range in length from 70 to 80 feet, there are 8 to 14 men on board, the labour is divided among the skipper, net boss, and five to twelve deckhands. According to Wadel (1972) in the Norwegian purse seine fishery the net boss has primary responsibility for the casting operations and receives three to four times the remuneration of the deckhand's share of the catch; the skipper receives double the deckhand's share. There is no indication in his discussion as to the impact of these divisions on crew interaction.

The purse seine method of fishing is utilized by the tuna fishers of San Diego, California. In this fishery, the boats range in length from 150 to 250 feet, the crew is of 14 to 18 men (the average number is 15). Because of the size of these vessels they are required, by the U.S. coast guard to carry three certificated men: a Master, a Mate, and Chief Engineer. However the boats are in the control of the skipper. The Masters and Mates, are referred to as 'Paper Masters' and 'Paper Mates' indicating their lack of status relative to the skipper (Orbach,

1977). The 'Paper' Officers were required by the Coast Guard in the late 1950s early 1960s when the tuna fleet converted to seiners. Many of the skippers at this time were not formally certified. Consequently, the practice arose of having 3 certified workers on board who, as was often the case, were not fishers. According to Orbach (1977: 240):

Paper Masters and Mates are still common today. If the skipper does have Master's papers, the Mate usually does the navigating, runs the console during the sets, steers the boat, and generally takes care of the bridge. When there is in addition a paper Master aboard, the Master takes over these functions and it is not unusual to find the Mate on the netpile or engine room watch.

Other than these men there are: a cook, deck boss, four to five speed boat operators, three to four general deck crew, skiff driver, and, sometimes a mast man.

Similar to the findings of Tunstall (1969), status divisions are also reflected in the sleeping arrangements: the working deck crew in the fo'c'sle, the others in two or three bunk cabins, and, the skipper alone.

The trips of the tuna fishermen are divided into two separate seasons: quota trips, and outside-the-line trips. Quota trips are preferred. The species is the valued yellowfin tuna. The season begins in January and lasts until March. After March, fishing of yellowfin is only allowed outside-the-line, approximately 1,000 miles beyond the coastline. To stay 'inside', means to fish the less valuable skipjack tuna. Fishing for tuna requires trips from 40 to 60 days in length.

Recruitment is based on affective bonds involving ethnic, familial and social criteria. In particular, this fishery relies on ethnic based recruitment. Many crew members are recruited from Latin America, but most are of Portuguese or Italian origin. According to Orbach ethnicity is a significant component of the tuna fishery of San Diego. He (1977: 7) states:

These men and their families of Italian and Portuguese descent have been the primary driving force behind the development of the tuna industry in San Diego. ... the success of the industry and the history of its control by men and women of these ethnic groups rests upon a dedication to fishing as an occupation and a lifestyle in combination with prudent and astute investment and business acumen.

Orbach also found a high degree of crew solidarity, the suppression of hostilities, and egalitarianism. While Orbach argues there is a pervasive egalitarianism on board these vessels, he cautions that this does not necessarily imply a lack of status distinctions among the crews. However, he does argue that such divisions do not supersede the egalitarian ethic. He (1977: 244) states:

It is very important to remember, however, that in addition to matters of status, structure, and hierarchy - which are all very real phenomena - most of the interaction aboard the boats is governed by a strong egalitarian ethic.

Orbach attributes the lack of hierarchical relations to kinship and affective based recruitment and the fact that skippers (as in most fisheries) have 'come up through the ranks'.

The following Tables 2 and 3 summarize this discussion.

Table 2

Physical Conditions and Social Organization of Work
in Selected Fisheries by Type of Gear and Location

Physical Conditions and Social Organization of Work	Gear Gillnet	
	Location	
	Newfoundland	Shetland
Species of Fish	cod	herring
Crew	2 - 5	9 - 10
Trip	1 day	1 day
Season	May-Dec.	Apr.-Aug.
Recruitment	kin	informal
Division of Labour	skipper crew	skipper engineer cook crew
Hierarchy	some	some
Ownership	fishermen	fishermen

Table 3

Physical Conditions and Work Organization in
Selected Fisheries by Type of Gear and Location

Physical Conditions and Work Organization	Gear		
	Trawl	Purse Seine	Purse Seine
	Location		
	Newfoundland	Scotland Norway	San Diego
Species of Fish	groundfish	herring whitefish	tuna
Crew	12 - 18	5 - 12	14 - 18
Trip	10 - 20 days	7 - 14 days	40 - 60 days
Season	year-round	year-round	Jan. - Nov.
Recruitment	formal	no data	informal
Division	skipper mate, bosun chief and second engineer radio man cook, crew	skipper engineer deckboss cook deck crew	skipper Master, Mate chief engineer deckboss, cook speed boat man skiff man crew
Hierarchy	yes	some	yes
Ownership	non-fishermen	mostly fishermen	mostly fishermen

Conclusion

This discussion has described the important environmental, technical and social organizational characteristics of commercial fishing. The foregoing description suggests that fishing is a particular adaptation, characterized by specific technical and physical constraints, which in turn call for a specific social organization of work. The Norrs (1977) arrive at a similar conclusion.

In summary, this chapter has advanced two propositions regarding work in the fisheries. First, there is evidence that fishing is conditioned by unique technical and physical constraints. These include: lack of control over a mobile resource (e.g., the common property nature of the resource), separation of workplace from residence, social isolation and marginality, and, exposure to risks and uncertainty. Second, these physical and technical constraints are related to the organization of fisheries work. In demonstrating the credibility of these two claims, the following generalizations emerged.

First, it is possible to distinguish between two different fishing sectors: inshore versus offshore. Each is often associated with the use of particular types of fishing gear: traps, hook and line, gillnet versus trawl. In some regions of the world it is possible to discern a third, intermediate area: the mid-water (i.e., the nearshore and midshore). Here the use of the purse seine and longliner is common.

Second, in the inshore and mid-water fisheries, fishers appear to retain ownership of the means of production. Indeed, as it was argued (p. 61) small-scale fisheries, characterized by

fisher owner-operation, may be the most effective method of access to some fishing stocks and further may provide the fisher with "a very high incentive to bring in the best catch possible and to maintain his vessel and equipment in the best possible condition" (Copes, 1986: 15). In terms of the social organization of work in these fisheries, it appears there is a strong tendency towards egalitarian relations and nonhierarchical chain of command. Also, the division of labour tends to be relatively diffuse and work groups incline towards informal and affective relations.

Third, in the offshore, where trawling is prevalent, fisher ownership is supplanted by employer-employee relations. The social organization of work exhibits greater hierarchy and authoritarianism. The division of labour is clearly defined and task specific. Recruitment is frequently contractual. Finally, there is a tendency towards greater formality and instrumentality in intra-crew relations.

Fourth, the purse seiner, as represented in the literature cited, is larger and more expensive than the smaller, inshore gillnetter. These seiners are examples of the largest boats owned and operated by individual fishers and, the most advanced small-scale fishery. Seiners are utilized in the inshore, mid-water and offshore areas.

The modern purse seiner is increasingly used. The division of labour on these boats in some respects parallels that on the trawlers. Both types have the greater specialization of tasks than is the case on gillnetters. However, it is also the case

that these vessels, relative to the off-shore trawlers and draggers, are more often described as characterized by an emphasis on recruitment for compatibility and skill, a lack of administrators, de-emphasis on formal authority distinctions, crew involvement in decision making and absence of hierarchy. In contrast to the trawlers, the seiners, like the gillnetters tend to be fisherman owned and operated.

The trend toward fisher owned and operated seiners may indicate the greater efficiency of this type of gear. Indeed, fisher owned and operated vessels, may, in the last analysis prove to be a very efficient form of harvesting the resource. For example, Copes (1986: 16) argues that,

small-scale fisheries not only have a substantial and secure niche in the fisheries of the future, but also that they will have opportunities to partly displace industrial fisheries. As the technical skills and financial capacity of independent owner-operators increase, they will be able to acquire and operate larger and more sophisticated vessels, fishing at greater distance from their coastal base. With their inherent advantage of owner-operation I believe they will be able increasingly to outperform large company operated vessels in middle-distance fishing operations.

The following chapter will describe the Pacific coast fisheries with reference to the physical and technical conditions of the harvesting sector. Topics include: the type of gear, predominant species harvested, the area fished. It will also describe the social organizational factors which were observed during the fieldwork and reported in interviews with Greater Vancouver commercial fishers. Topics include: recruitment, hierarchy, and the division of labour. Given the qualitative

design of the research, it must be kept in mind that any generalizations emerging from the upcoming discussion are strictly tentative. A list of some of the major hypotheses generated by this research are provided in Chapter Eight.

CHAPTER IV

TECHNOLOGY AND ORGANIZATION: THE PACIFIC FISHERY

The way in which men produce their means of subsistence depends first of all on the nature of the actual means of subsistence they find in existence and have to reproduce. This mode of production must not be considered simply as being the reproduction of the physical existence of the individuals. Rather it is a definite form of activity of these individuals, a definite mode of life on their part. As individuals express their life, so they are. (K. Marx, The German Ideology)

This chapter will apply the framework presented in the previous chapter to describe the specific organization, both past and present, of some aspects of the Pacific coast commercial fisheries. The following discussion is divided into three sections: Historical Background, Current Technology and Organization (i.e., Technical and Physical Conditions, and, the Division of Labour), and, the Social Relations of Work. Each section is summarized individually.

Historical Background

The intriguing and perplexing problem in the study of fishing is that it often remains the domain of the small independent. Work is primarily carried out by relatively independent fishermen in owner-operator vessels. This is in sharp contrast to many other primary industries (e.g., petroleum, mining, logging), as well as secondary (e.g. automobile manufacturing) and tertiary industries (e.g., banking, and wholesale) where the small producer has largely been replaced by corporate enterprise and labour is predominantly employed for wages.

Relative to many other sectors of the Canadian labour force, fishing is a rather anomalous case. In this sector the fishermen, like the craftsmen of the eighteenth century, own and control their tools and organize their own labour process. Hence, in the fishery there is little formal subordination of labour, at least in the harvesting sector.

In the case of the Canadian Pacific coast fisheries, particularly in the harvesting of salmon, the historical conditions and changing relations and forces of production provide some clue as to the explanation of the persistence of this particular form of labour. The upcoming examination of the historical evidence will explain how it is that:

- 1) Fishermen are independent with reference to the immediate labour process.
- 2) Fishermen are dependent on an oligopsony in the processing sector.

The following synopsis of the history of the British Columbia fishery will describe some of the most important federal government policies, the general pattern of increasing concentration in the processing sector, and, changes to the fisherman's labour process. This discussion is provided as a historical backdrop for a descriptive understanding of the current conditions of labour in the harvesting sector. It will demonstrate how the technical and physical constraints of fishing are compatible with fisher ownership in the harvesting sector and oligopsony in the processing sector. The discussion will necessarily be brief, to avoid taking us too far afield. There are a number of well documented historical studies which the

reader may turn to for a more in-depth explanation of these issues (e.g., Ralston, 1965; Stacy, 1968).

The Fisheries Act of Canada was extended to British Columbia in 1877 along with the British North America Act. It was at this time that these fisheries came under federal jurisdiction. Somewhat coincidentally, in the late 1800s many of the problems associated with the fisheries also came to the forefront (i.e., increasing concentration and/or competition in the processing and harvesting sectors of the industry). Briefly stated, along with federal intervention arose a trend of amalgamations among the canneries resulting in the beginning of oligopsonistic control of the harvesting sector.

Federal policy, was actively initiated on the Fraser River during the 1889 to 1892 period in the form of a license limitation program (Elsy, 1984). A similar program was put into effect in the northern regions from 1910 to 1920 (Elsy, 1984)¹. These programs were designed to reduce competition for the harvest among the fish processors. But, they were also an attempt to reduce competition among fishers. In 1892, the collapse of the limitation program spurred the growth in the fishing fleet and furthered concentration in the processing sector. In sum, at the turn of the century, the groundwork was laid for fishers becoming independent producers and dependent sellers. But how did this come about? Significant actors in the scenario were the

¹ According to some observers (e.g., McMullan, 1987; Warriner, 1987) the northern region tends to follow a pattern very similar to the Fraser region. Consequently, for the sake of brevity this discussion will be confined to the southern area.

canneries. The following will discuss the nature of the processing sector in this early period.

Pearse (1982: 10) marks the rise of the British Columbia fishing industry with the export of salted salmon by the Hudson's Bay Company in 1830 and the establishment of the first "commercial" cannery on the Fraser River in 1870. During the 1870s, the majority of the fish canneries were located at the mouth of the Fraser River. This industry was based on family firms. In 1874, there were 3 canneries, in 1882 there were 13 canneries, and in 1891 there were 21 canneries (Elsy, 1984; Ralston, 1965). These canneries sold their products internationally and were oriented towards European, especially British, and, American markets. Hence, even during these early days, the industry was dependent on external markets.

The abundance of the resource led to capital investment, increasing competition, and employment of the local labour force - a typically Canadian "boom period". However, by the mid-1880s, the Fraser River was experiencing overcrowding and declining markets.

In 1889 the federal government stepped in and initiated the first of a series of license limitation programs. This program limited fishing vessel licenses on the Fraser River. It limited the aggregate number of licenses to five hundred with a quota of twenty licenses per cannery. According to Pearse (1982: 78):

In 1889, the federal government limited the number of licenses for fishing boats on the Fraser to 500. Three hundred and fifty of these were distributed among the canneries according to their canning capacity. The only way they could obtain more licenses was to expand capacity, and as the fishery became more profitable, the canneries, predictably, did just that. New canneries were built, as well, the number increasing from 12 to 18 within three years.

The canneries were allocated licenses from the existing pool (Elsey, 1984), this translated into a potential loss for existing canneries, and spurred on the drive toward mergers in order to acquire more licenses.

In 1891 three canneries controlled seventy per cent of the Fraser River salmon pack. These companies were the Anglo British Columbia Packing Company, Ewen and Company, and Victoria Canning Company (Elsey, 1984). Consequently, there existed a small number of buyers. This development resulted in the disappearance of the small family firms characteristic of the 1870s and 1880s.

By 1902 concentration was further accelerated with the purchase of twenty-nine of the existing forty-eight Fraser River plants by British Columbia Packers Association (BCPA) (Elsey, 1984; Guppy, 1986; Hayward, 1981). This association was based in New Jersey. Its present day complement is BC Packers, a subsidiary of Weston Foods. By 1905, the B.C. Fishing and Packing Company, an outgrowth of the original (i.e., BCPA), had reduced the number of canneries on the Fraser to fifteen (Elsey, 1984). Between 1923 and 1928 British Columbia Fishing and Packing Company absorbed British Columbia Canning Company (1923); Wallace Fisheries (1926), and Goose Millard Packing Company (1928) (Elsey,

1984; Innis, 1941: ix). In 1928, the now dominant BC Packers was formed (Elsley, 1984).

This brief overview of the history of the fish canning industry in British Columbia indicates the process of increasing concentration. By 1930, the salmon canning industry was dominated by a small number of firms, in particular BC Packers. However, there was at this time one other major firm - Canadian Fishing Company. This company was established in 1918 and was a subsidiary of an American (i.e., New England) fishing company. By 1926, this company owned seventeen canneries, three salteries, four mild cure stations, and six cold storage plants. During the war years these two firms continued to expand. The results are that by 1946 the processing sector comprised a total of fourteen firms. At this point, BC Packers produced thirty percent of the entire salmon pack and Canadian Fishing Company controlled approximately fifty percent (Elsley, 1984). According to Pearse (1982: 162) the processing sector is,

now consolidated into a few large processing facilities near the major population centres, with only a few plants in remote coastal locations. The industry is most concentrated in the canned salmon sector, where the four largest firms account for 82% of the total output.

But what of the fishers?

The history of the fishers is, as mentioned earlier, an anomalous case. In general, during the early years fishers were employees of the canneries. Prior to the mid-1880s, the fishing companies had almost complete control of the ownership of fishing licenses.

Up to the early 1880s, the companies supplied the vessels, which were sail powered gillnets, and, the fishers would deliver the catch to the company on a piece rate system. By the middle of the 1880s British Columbia experienced an expansion in the economy with the mining boom and the construction of the CPR and labour was becoming scarce and in demand. The canneries, faced with a tight labour market began to pay fisher's wages and fishing expenses through the company store (Guppy, 1986). By 1884 there were approximately over four hundred boats on the Fraser River (Elsey, 1984). According to Guppy (1986: 65), in 1889 the government set in place the first division of licenses between the fishers and the canneries. The "free" fishers were allocated 90-100 licenses the canners the remaining 280-300 licenses. He argues that fears began to grow regarding both overfishing and overcrowding. These fears heightened and the government responded with the 1889 license limitation program.

The stage was now set for the rise of the "free" fisher. The limitation program issued 150 licenses to independent fishermen and 350 to the canneries. There was a total of 500 licensed vessels. Each individual cannery was allocated a maximum of twenty licenses.

There were two competing forces at work in the dismantling of license limitation. The canneries argued that there was an inexhaustible supply of fish which would not be affected by increased fishing. On the other side, were the "free" fishers. They argued that control of licenses by the canneries was unjust because fish are a communal resource. Further, they pressed the

point that they had a right to access because the canneries were attempting to exercise an unfair monopoly.

From its inception the limitation program was doomed to failure and the enforcement of restrictions fraught with difficulties. For example, Warriner (1987: 330-336) reports that from 1889 to 1892 licenses increased from 500 to 765. At this time, he reports, there were 348 independent fishers, and, the canneries held a total of 417 licenses. Considering the earlier strictures that would mean cannery licenses increased from 350 to 417, and independent licenses from 150 to 348. What is apparent here is a significant increase in the number of independent fishers. The limitation program was cancelled in 1892. It was now possible for all British subjects to acquire a fishing license². By 1894, a trickle had turned to a flood, there were 1,057 independent fishers!

Under these competitive conditions the number of "free" fishers increased, while in the processing sector the number of canneries decreased.

By the mid-1890s the old system of fisher wage labour had been replaced by independent commodity production. With a rapidly increasing independent fleet, and concentration within the processing sector, a buyers' market was created. The beginning of contract relations arose out of wage relations. The individual fisher now assumed fishing expenses.

² The limitation on the number of cannery licenses, much to the chagrin of owners, continued until the 1900s (Guppy, 1986).

It is important to keep in mind at this point, that the canneries quickly adapted to these changing conditions. For, while they were dependent upon free fishers for their supplies of fish, a large number of sellers may increase the buyers bargaining position. This potential is greatly enhanced when the number of buyers is small. Hence, oligopsony. As Guppy (1986: 66) argues:

Competition to sell fish was historically, and still is exacerbated by the abundance of fishermen. Rather than discouraging fishermen, companies have often encouraged men to fish by (among other things) renting them boats or loaning them money. The advantage to the processing companies is that competition among suppliers lowers the asking price for fish.

The outcome of this is a paternalistic relation between harvester and processor. This has been aptly characterized by Pinkerton (1987: 75). She states:

Competition by processors in the provision of services to fishers is simultaneously the most direct method of acquiring supply and avoiding price competition ... the services provided... make it difficult for a fisher not to deliver to the servicing processor and are in themselves forms of enforcing the unwritten contract that a fisher so served has agreed to deliver the catch to that processor, even if another processor offers a higher price.

At this juncture, it is possible to discern a potential outcome of this interdependency between fishers and the canneries. To secure a constant supply of fish the companies have traditionally solicited the favours of fishers by the provision of special services. These may include "a variety of mechanisms including company provisions of pre-season finance; year-round accounting, servicing, and repairing; in-season fish packing and

ice supplies; and long term loans or credit-rating guarantees for gear and/or vessel expenses" (Guppy, 1987: 187). In a nutshell, the fisher's independent labour process has, since the turn of the century, been circumscribed by the processors.

Along with the rise of the independent fishers there developed three important technological innovations. First, there was the introduction of the Collingwood or Columbia River boat which allowed access beyond the mouth of the Fraser River to intercept incoming salmon. According to Warriner (1984: 333) the introduction of the Collingwood boat was necessitated by overcrowding and increasing competition among fishers. He states:

By the early 1890s, the sturdier, more seaworthy Collingwood boat had been firmly established in the area, and a new type of gillnet, less likely seen by fish in the clearer gulf waters, was in use.

Second, there was the introduction of the gasoline engine in 1907. By 1910 gasoline powered gillnetters accounted for fifty percent of the boats on the Fraser River and in the Georgia Strait. The introduction of motor power to the gillnet fleet was a major source of tension among and between fishers and the canneries. McMullan (1987b: 110) argues:

In 1911, two northern canneries employed motorboats on a large scale basis, and this created a crisis, putting canners against simple commodity producers and simple commodity producers against wage-labour fishers. Fishers with motorboats could roam farther, make more drifts, and increase their catch at the expense of the "sailboat fleet".

Third, there was the introduction of new fishing techniques: the troller (1910), and the purse seine (1886) (McMullan, 1987a:

36-37). Between 1910 and 1918 the number of seiners increased from twenty to 100³.

The following quotation extracted from an interview with a Greater Vancouver fisherman, whose grandfather came to North America in 1896, illustrates the awareness many contemporary fishers have of these technological innovations⁴:

I started fishing back, ah, actually the seiner licences came in about 1906, before they were not allowed any seining on the coast here, and grandfather built tow boats ... before the seining licences came in he was towing scows with fish to different canneries ... after the licensing of seiners they built the seiners, put them on a scow and towed the scows to the areas they were going to fish ... they ... pulled the nets onto the scows by hand, ... and also took a houseboat over with them, and took their families across there and lived there while they fished ... From there they gradually bought a boat, 1913 built their own seine boat, 1919 father build his own boat - sold in 1925, 2 to 3 years he ran a company boat, bought a boat again in 1929 until 1940. (F: 54)

Technological change is interrelated with the social and technical conditions of production. These innovations are also dependent upon the type of resource being exploited. In the fishery the resource is peculiar. In this industry the trends,

³ Fishing times and locations are regulated separately for each gear type. With increasing competition for the resource there arose increased gear based conflict. These conflicts led to the establishment of a multiplicity of gear based organizations to the dismay of those attempting to unionize the fleet.

⁴ For a discussion of the illustrative data used in this study see Appendix A, B, C, and D. The code numbers and brief descriptions of the characteristics of the informants are given in Appendix D. This type of reporting is consistent with qualitative methodology and exploratory research. As Kidder (1981: 113) states: "The most common form of reporting data is to provide illustrative excerpts from recorded notes".

conflicts and contradictions between the canneries and the fishers are, in the last analysis, dependent upon fish and their habitat. The lack of control or ownership of the resource is a motive force for these social relations. Fish are "common property", and they are also mobile, unpredictable, have an extremely short harvesting period, and, are highly perishable. The cycles of the various salmon species vary: northern sockeye have a five year cycle, Fraser River pinks have a two year cycle, chinook (i.e., spring) may have up to a seven year cycle and coho commonly have a five year cycle. For most sockeye, the typical cycle is four years (Copes, personal communication, 1988). As Marchak (1987a: 24) notes:

Salmon have four year cycles and the size of runs over the period is always unpredictable. Fishing is always dangerous, and weather conditions uncertain.

The importance of the environment in which fishing takes place and the peculiar characteristics of the resource lie at the base of the social and technical relations of production. This point has been clearly articulated by Warriner (1987: 331). He argues:

While many things influence capture and processing ... in fishing it has been the nature of the resource that has above all determined the regional patterns just reviewed. Fish are mobile and, once caught highly perishable. Unlike other resources in which harvesting rights for a particular region can be formally acquired, then used as a means of guaranteeing access to the resource, such property rights have little point in the fisheries where the fish can be easily captured outside the boundaries of a designated area.

This completes the overview of the historical preconditions which provide the backdrop for an understanding of why it is that fishers on the west coast of Canada are independent with reference to the immediate labour process but are dependent upon a restricted market for their product. This discussion has also indicated how it is that these producers have come to control their tools and organize their own labour processes.

Clement (1983) has described the fishery as "dependent commodity production" and it appears that this is an accurate description of the Pacific coast fishery. In this area, capital exploits labour through the market while labour retains ownership of the means of production. The argument also indicates how it is that Braverman's (1974) prediction regarding the transition towards wage labour has not occurred. In fact, the reverse is closer to the truth, capital has been incapable of direct control over harvesting. This lack of control can be traced directly to the specific nature of the productive process - the existence of the competitive harvesting of a common property resource - which is derived from the particular technical and physical conditions of production.

Current Technology and the Division of Labour

This section will describe the current physical and technical conditions and the division of labour of the Pacific coast fishery. This will provide further support for the argument that these conditions are a unique form of production which creates and maintains a particular work culture.

Physical and Technical Conditions

The following will describe the physical and technical conditions of Pacific coast commercial fishing. Topics include: gear types, species of fish, season, and trips.

On the Pacific coast the predominant species caught is salmon. The federal department, Fisheries and Oceans, reports that of the important species (i.e., those accounting for more than \$2,000.00), the five species of salmon accounted for 64.8% of the value of the 1980 landings (Department of Fisheries & Oceans, 1982: 112). According to the 1982 Commercial Fishing Guide: Proposed Fishing Plans and Stock Expectation (Department of Fisheries & Oceans, 1982)⁵, the second most important species is herring at 14.96% of the total landings. Other fisheries recorded, totaling 15.20% of landed value, are: halibut (4.06%), crab & shrimp (3.08%), sablefish (1.97%), grey cod (1.84%), rockfish (1.71%), geoducks (1.27%), sole (1.27%), the remaining percentage is accounted for by the less important species (i.e., those contributing less than \$2,000).

The salmon fishery is the single most important source of livelihood for British Columbia's commercial fishers. On this coast there are five species: sockeye, coho, pink, chum, chinook (see Figure 1 for an illustration of the different species). The chinook (or 'king' or 'spring' salmon), is the largest. The spring salmon may have either red or white meat. The red spring salmon is sought after by freezer trollers because it commands a

⁵ Wherever possible data from the 1980 to 1982 period are used to correspond with the period of fieldwork and interviews.

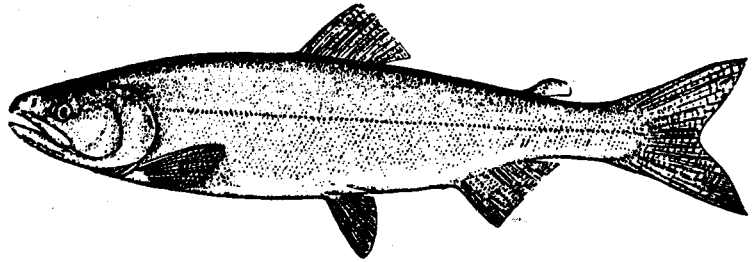
comparatively high price (i.e., while gillnet caught sockeye may be selling at \$2.50 per pound, the troll caught red spring for the fresh or fresh frozen market, will sell for around \$5.00 per pound⁶. The coho (or 'Silver' salmon), is cheaper than the chinook, and less desirable, however, like the chinook (the 'Spring', or 'King' salmon), the coho is most often sold in fresh fish stores or quick frozen. As a generalization, gleaned from this fieldwork, troll caught fish tend to command higher prices than net caught fish.

⁶ During the 1982 season, while I was a participant observer on both a gillnetter, and freezer-troller, these are the prices received from BC Packers.

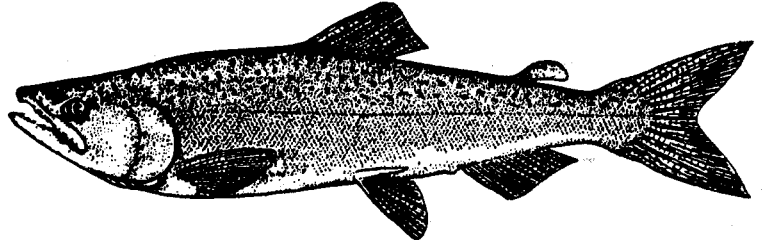
Figure 1

Illustrations of the Five Species of Salmon

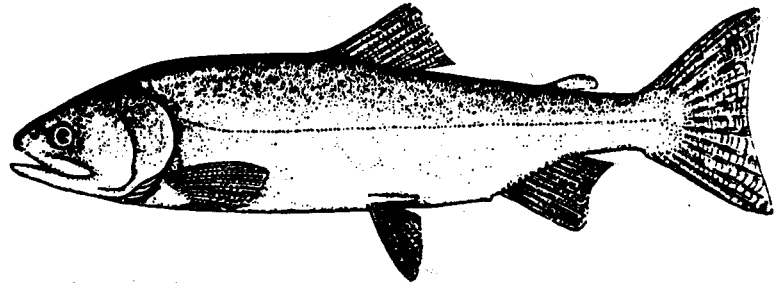
Sockeye
 ("Oncorhynchus nerka")
 Weight: 5 to 7 lbs.



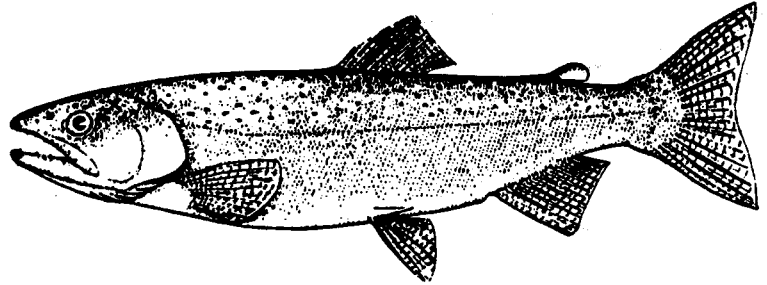
Spring
 ("Oncorhynchus
 tshawytscha")
 Weight: average 25
 to more than 80 lbs.



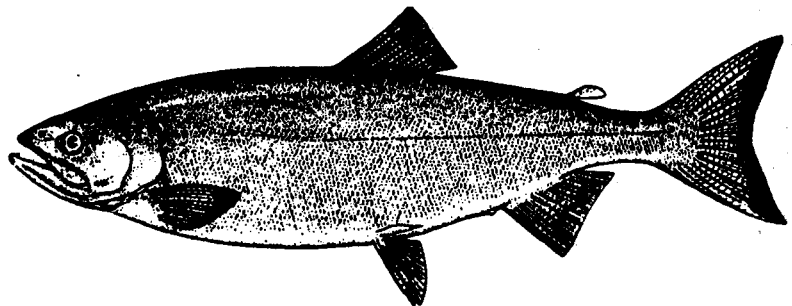
Pink
 ("Oncorhynchus gorbuscha")
 Weight: 4 to 5 lbs.



Coho ("Oncorhynchus kisutch")
 Weight: about 9 lbs.



Chum
 ("Oncorhynchus keta")
 Weight: about 10 lbs.



In 1980, the total wholesale value of all salmon was \$289,107,000 of that total 50.79% is canned, 10.42% is fresh, 37.81% is frozen and 7.80% is unaccounted (D.F.O., 1982: 112-113). Of the individual species, 90.88% of the sockeye is canned, 92.16% of the pink is canned, 61.77% of the coho is frozen, 67.24% of the chum is frozen and 74.18% of the spring (chinook) is frozen (D.F.O., 1982: 112-113).

Consistent with the argument put forth in the previous chapters, the type of fishing gear varies with the species harvested and area fished. On the Pacific coast these conditions are regulated by government policy and licensing. There are twelve different types of commercial fishing licences issued by the Department of Fisheries and Oceans (DFO)⁷.

The categories of Pacific coast commercial licences are: A - Salmon; AI - Indian, Salmon; B - Salmon (nonrenewable); C - Groundfish by hook and line; Crab, Shrimp, Prawn by trap; Octopus and Eulachones with a vessel, and other species not restricted; D - Packers⁸; E - Abalone; G - Geoduck; Horse Clams (subtidal); H - Roe Herring (gillnet and seiner net); HI - Indian Roe Herring; K - Sablefish (blackcod); L - Halibut; S - Shrimp Trawl; T - Groundfish Trawl; Z - including: Molluscs, Crustaceans, certain

⁷ These are the yearly renewal fees for fishing vessel licences. These licences are owned and sold by individual fishermen. The market price of these licences varies with the economic cycles of the fishery.

⁸ 'Packers', as with all vessels active in the fishery, are required to have a valid licence. 'Packers' purchase the fish from the fishermen on the 'grounds' and deliver the fish to the fish packing companies.

Finfish; Echinoderms; Plankton; and Marine Plants. (Department of Fisheries & Oceans, 1982: 25-26; 75-85)⁹. Every year the fisher must pay these licence fees to operate his licenced vessel on the fishing grounds. Hence, while the fisher's vessel licence is private property, his right to activate the licence is controlled by the federal government (i.e., DFO) and subject to a yearly user-fee.

The highest annual fee is paid for the roe herring purse seiner licence tab which costs the individual fisher \$2,000.00. The 'A' licence commands the second highest fee: from \$200.00 (boats under 9.14 meters), to \$800.00 (boats greater than 42.5 meters)¹⁰. The median 'A' tab fee is \$400.00 for boats ranging in length from 9.14 to 42.5 meters. The third most expensive licence tab is for the roe herring gillnetter, \$200.00, and abalone, \$200.00. Generally, the higher the licence fee for the tab, the greater the expected return to the fisher for his catch. DFO collects from individual fishers a licence fee for the tab. However, the licence itself is owned by the individual.

As mentioned in the previous historical section, licensing has been a perennial problem in the west coast fishery. The most recent attempt at licence limitation was inspired by H. Scott Gordon's (1954) "The Economic Theory of a Common Property Resource: The Fishery". This publication was followed by the

⁹ Molluscs include: butter clams, little neck clams, manillan clams, razor clams, soft shell clams, horse clams (intertidal). Crustaceans include goose barnacles. Finfish includes eulachone, smelts and sardines. Echinoderms include sea cucumbers and sea urchins.

¹⁰ Approximately 29 to 129 feet.

federal commissioning of a study undertaken by Sol Sinclair in 1958. The Sinclair Report was published in 1960. Sinclair rekindled the debate on licence limitation. In 1968, the Davis Plan limited salmon licences to those considered to be "bona fide" fishers. This federal initiative had mixed and disappointing results (Copes, 1980). The problems of which are still evident. According to McMullan (1987b: 126),

the Davis Plan was controversial....Most important, there was a fundamental error in the basic assumption that vessel numbers could be used to control the intensity of fishing power. In retrospect, the plan succeeded in downsizing the fleet, but it did not remove excessive capacity. After fifteen years of restrictive licensing, already excessive capacity in 1968 had doubled or trebled by 1982.

The Davis Plan was designed to rationalize the salmon fleet by eliminating excess capacity. This involved a licence limitation scheme and a "buy-back" program. Salmon 'A' and 'B' licences were created. The 'B' was awarded to boats with low production. These licences had a nonrenewable ten year limited term. The majority of vessels, those owned and operated by active salmon fishers, were designated class 'A' (Pearse and Wilen, 1979).

In 1969, the annual licence fee was ten dollars. The Plan involved increasing the fee of the 'A' licence from \$10.00 to \$100.00 or \$200.00 depending on the tonnage. The 'B' licence fee remained at \$10.00 (McMullan, 1986b: 125). The proceeds from the higher fees were earmarked for funding further buy backs. As previously mentioned, the outcome of the Davis Plan was less than

satisfactory. In their evaluation of the program, Pearse and Wilen (1979: 768) argue,

the fleet rationalization scheme has been partially successful in checking the expansion of capital engaged in the fishery. More important, however, is the clear evidence that the growth in redundant capital has not been halted.

This growth in redundant capital, or what McMullan terms excessive over capacity, is attributable to the "capital stuffing" process (Copes, 1980; Copes & Cook, 1982). Under conditions of limited entry, the tendency is for participants to add to the capacity of their boats through investing in additional and more expensive equipment (Copes, 1978: 125-128). Overall the consequence is lower profits because the improvements to individual vessels increases the operating cost of the fleet. This "capital stuffing" results in the treadmill of overcapacity! This additional capacity reduces the actual value of licenses because the extra capacity results in lower profits.

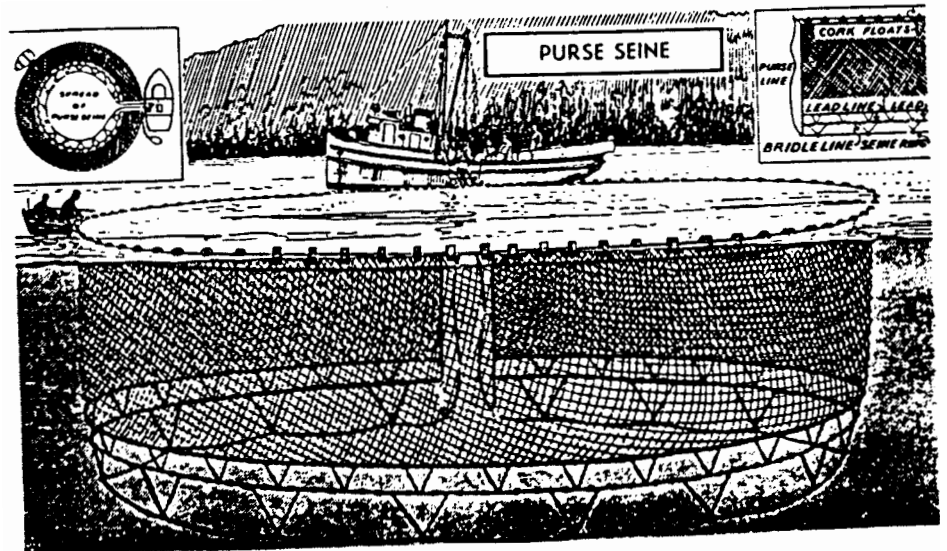
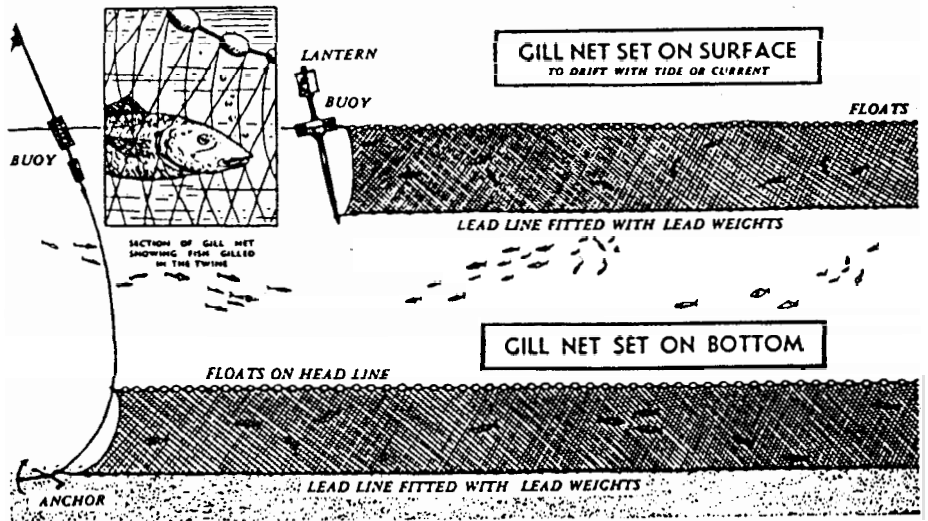
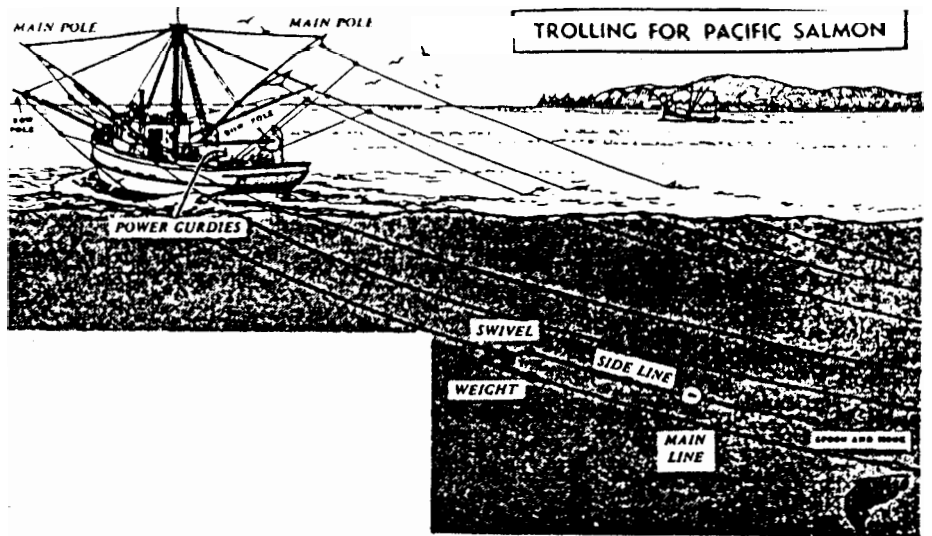
The increasing costs are staggering. According to McMullan (1987a: 35),

between 1969 and 1982, the capital value of licences went from zero to \$145 million, and the capital value of vessels escalated by almost 500 percent from 91 million to \$432 million; this despite a reduction of 1500 vessels in the overall fleet.

In salmon fishing there are three types of commercial fishing gear: gillnet, troll, and purse seine (see Figure 2 for illustrations of the three predominant gear types).

Figure 2

Illustration of the Three Predominant Salmon Fishing Gear Types



Adapted from Forester and Forester, 1975: 57, 66, 76

The landings by gear type in metric tons are: seine, 24,796; gillnet, 14,084, troll, 14,991 (D.F.O., 1982)¹¹. Gillnetters are the most numerous type of boats. An accurate description of this gear type has been provided by Clement (1984: 15):

Their boats are...30 to 50 feet. Since the addition of hydraulic drums which haul in the nets, the fishermen have been able to increase their sets per hour and decrease the need for additional help. Depending upon conditions, gillnetters will set their nets for from 15 minutes to several hours before hauling them in.

In the gillnet procedure, the objective is to catch the fish through the gills. The fish are caught in a nylon net which is laid out and hangs like a fence in the water. The fish swim into the net and are caught by the gills and drown. The gillnet is the oldest of the Pacific coast commercial fisheries. The technique is much the same today as it was in the 1800s. According to McMullan (1987a: 35) it is "...a passive style of fishing, requiring patience, stamina to withstand long sleepless periods, and knowledge and skill to make a 'good drift'". Between 1900 and 1910 the sail powered gillnet adapted to motor power. In the 1930s the power drum for rolling the net was adopted. Nylon nets were introduced in the 1960s. The other commercial net gear, the purse seine involves a more complex technique.

Seinenetting is different than gillnetting. In seining, the net encloses a school of fish. There are two ways this is done: the free set in the open ocean and the beach set in confined waters.

¹¹ It is important to note that while the greatest landed tonnage is accorded to the seine fishery, the catch is divided among five to seven persons. Seiners are larger vessels and have larger crews than the gillnetters and trollers.

In the free set, the net is laid out from the main vessel in a circle while a small skiff anchors one end. In the beach set, the net is anchored on shore by being tied by a line to a tree or rock. In both methods, the bottom of the net is pulled together by what is essentially a draw string -- the "pursing of the seine". The mesh in the seiner's net is fine enough that the fish are entrapped but not caught as in the gillnet. In the past the fish were brailed live out of the net; presently they are winched out with the last part of the net. Because of this brailing procedure the seiners have come to be nicknamed "the swivel necks". McMullan (1987a: 36) describes this gear type thus:

Purse seiner sets a net around schools of fish, and then closes off the bottom of the net with a purse line. This prevents the fish from swimming out of the mobile trap--somewhat like the closing of a pouch style purse with a draw string. The net's size and heavy mesh, and the leadline used to sink the web make it a cumbersome apparatus. It is difficult to fish without manpower or powerful machinery to unload, set, and load the net to scoop the fish out of the nets enclosure.

The purse seine technique was introduced to the Canadian Pacific coast in 1886. At that time, it involved setting the net from "...scows and skiffs; the scows were powered by tugs, and the skiffs hauled out the net by oars" (McMullan, 1987a: 36). The first power seine built in British Columbia was in 1902. Other technical innovations in the 1950s and 1960s involved the addition of the power block and drum. These boats tend to be the largest in the salmon fleet, have the potential to deliver the greatest volume of fish and have the largest crews.

Sinclair (1978) reports the percentages of each gear type as part of the total fleet are gillnet, 43.15%; troll, 36.31%; seiners, 7.06% and 13.45% others. Warriner (1986: 343) reports a similar distribution of gear types within the salmon fleet: 43.2% are gillnet, 36.8% are troll, 8.1% are seine, 11.2% are combination gillnet-troll and 0.8% are other. Boats range in length from less than 29 feet to greater than 69 feet (see Table 7). The most common length of the gillnetters is 30 to 39 feet; seiners commonly range from 60 to 69 feet.

As in other fisheries, the season and area fished vary with the type of gear. The salmon season lasts from approximately 15 April to 30 September. Seiners and gillnetters are restricted to fishing along the coast, behind the surfline. Fishers refer to this simply as 'the line' or 'behind the line'. The 'line' is an invisible boundary which is drawn from headland to headland along the coast. It varies in distance from the shore depending upon the size of the bays and channels it crosses. In Figures 3 and 4 it is represented by the dark line which, in varying degrees, parallels the shoreline. Net fisheries are also restricted to specific 'openings' in particular 'areas' (See Figures 3 and 4). For example, Area 27 is located between Cape Scott and Cape Cook on the west coast of Vancouver Island. Gillnetters and seiners fishing in this area will do so 'behind the line' (See Figure 3). Salmon trollers, fishing outside the Strait of Georgia (i.e., "the Gulf"), are limited to fishing beyond the surfline. Trolling and 'trawling' are distinct despite their phonetic similarities.

Of the three gear types, the troller is considered to be 'lone wolf' of the industry. According to McMullan (1987a), these fishers are the most 'independent'. This observation is consistent with that of Clement (1984: 15) who provides this portrait of the troller:

They fish alone, operating six lines at a time strung on a complex system of tall poles and gurdys...When fishing they operate the boat from a "pit" in the back with all the controls required to steer the boat and equipment needed to fish and clean readily at hand. They go out for long periods of time, searching for exactly the right conditions. On hand they have a store of bait and lures which are frequently changed according to conditions--tides, winds, time of day, depth of water, location, season, type of salmon, etc.--all of which enter into the mystique of the "art" of trolling.

The troll fishery resembles the poll and line technique which is typical of most 'sport' fishing. The poles extend from the sides of the boat and are the source of the trollers derogatory nickname as the "poverty-sticks fleet". Trolling is a relatively new method. This gear type was adopted around 1910. It originated in Georgia Strait and the Queen Charlotte Islands and then spread to the west coast of Vancouver Island. According to Pinkerton (1987: 303):

Many of the fish taken by the large troll fleet that focused on the west coast of Vancouver Island consisted of passing stocks, intercepted on their way to the Fraser and other Canadian and American rivers.

Figure 3

Map of South Coast Commercial Fishing Areas

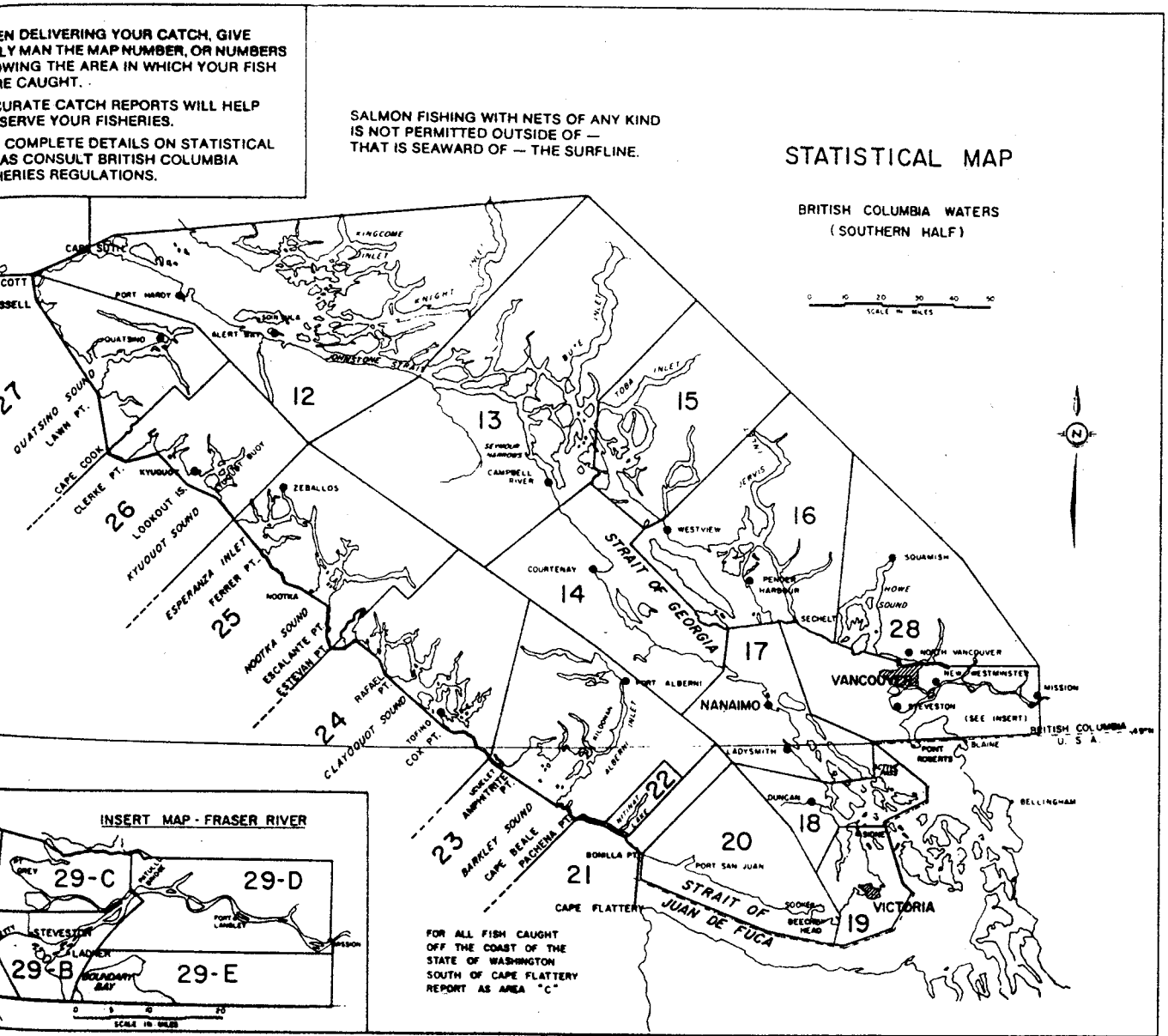
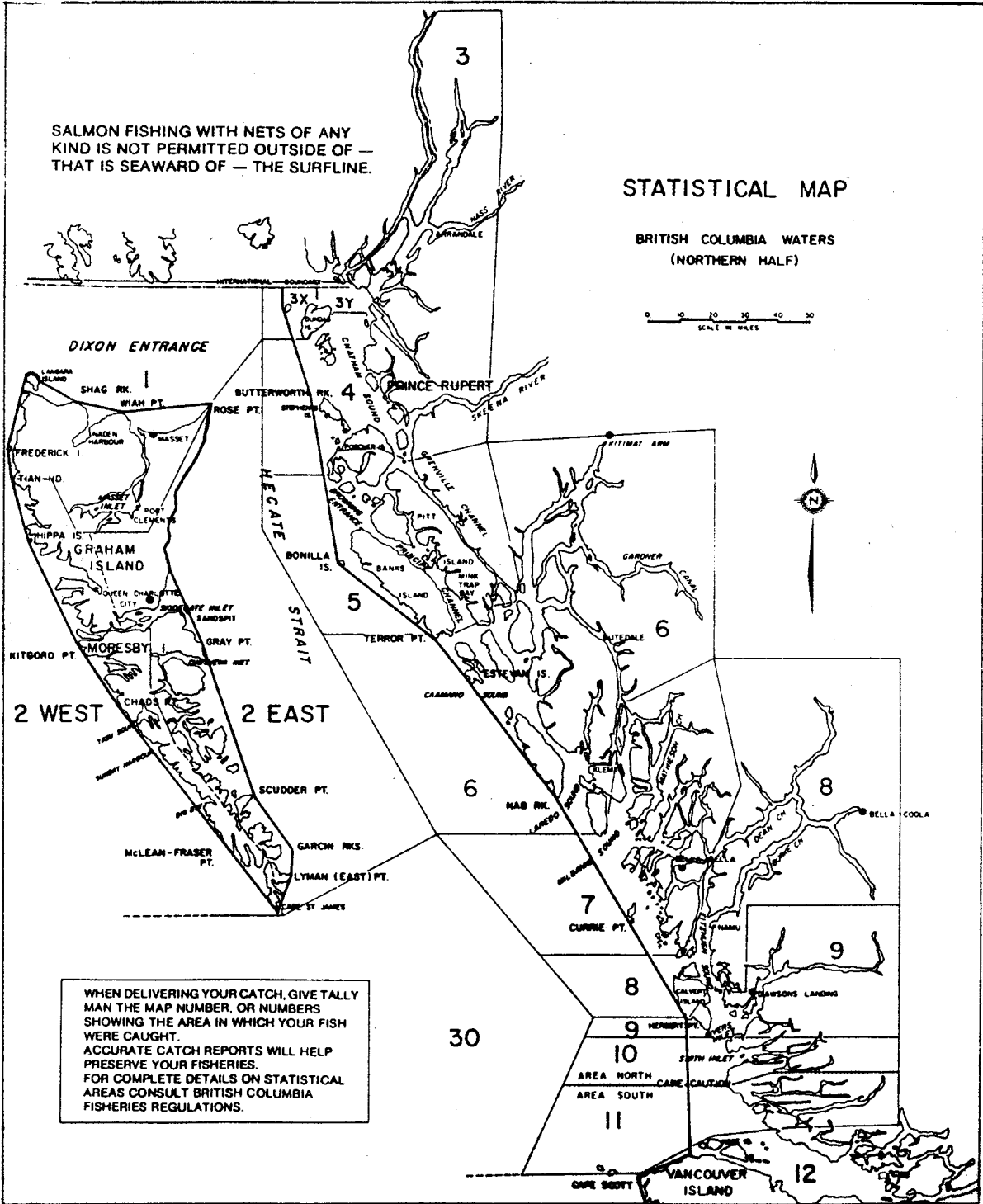


Figure 4

Map of North Coast Commercial Fishing Areas



Significant technological innovations to trolling have occurred during the 1970s. At this time the freezer, and modern telecommunications were acquired. McMullan's description is accurate. He states (1987a: 38):

Since the early 1970s, a small number of troll vessels have installed freezers, allowing them to stay at sea, for as long as their supplies of fuel and food last.

For those trollers without freezers, fish are preserved in flaked ice for up to 10 days. The length of time at sea, or the 'trip', is a function of weather, fish availability, and lasting supplies of food and fuel.

Some observers have noted that the introduction of freezers has effected the organization in the processing sector of the industry. Warriner (1987: 337) argues:

With improved freezing and cold-storage facilities aboard tenders and fishing vessels, the transportation of fish over greater distances became possible. Hence there was additional reason for further processing concentration, and, by the early 1950s, this sector had once again become primarily urban based in the centers of Vancouver and Prince Rupert.

'Trips' of the net fisheries (i.e., gillnet and purse seine) are controlled by the Department of Fisheries and Oceans. It is not at all uncommon for seiners to be limited to a half day opening per week. The gillnet fishery is less restricted and may be open for two to three days per week. The basic objective of the management of the fishery by DFO is to control harvesting to allow the reproduction and regeneration of the species through

ensuring adequate escapements. According to Pearse (1982: 38) there are five essential components to fisheries management:

- (1) acquiring information on fish populations,
- (2) formulating long-term plans on the number of spawners and adequate harvesting techniques,
- (3) establishing pre-season fishing plans,
- (4) regulate in-season management,
- (5) evaluate program results and plan future programs.

According to the Pearse Commission (1982), fisheries management by the Department of Fisheries and Oceans involves these five objectives. In terms of the immediate effect on the organization of work in the fisheries, objectives two through four are relevant. The following will discuss these.

Long term plans set targets for fish production to guide short-term fishing plans. This involves stock management, habitat protection and enhancement. Up until the 1980s, the most obvious and successful attempt at enhancing the stocks was the construction of the fish pathways which were built at Hell's Gate in 1945 by the Canadian and United States governments. The second major project was the completion of the Capilano hatchery in 1972. The most recent effort is the Salmonid Enhancement Program (SEP) which was established in 1979. This final program is effectively the only long-term planning¹² .

The results of SEP, in the short term are uncertain. What is most obvious is the high costs it involved. McMullan (1987: 145) describes the program thus:

¹² Salmonids include the five species of salmon and anadromous trout.

The major salmonid enhancement effort began in 1975. The conservationist thrust to "preserve, rehabilitate, and enhance natural salmonid stocks," however, was subjugated to definite economic and social ends. Between 1975 and 1977, the federal Cabinet authorized \$6 million to develop a comprehensive plan. In 1977 they initiated the Salmonid Enhancement Program (SEP) aimed at doubling the stocks of salmon and anadromous trout. Planned as a joint project with the B.C. government, phase 1 lasted seven years and cost \$157.5 million: \$150 million of federal state capital and \$7.5 million of provincial monies. Fully 80 million went into capital spending, most for major hatchery and fishway construction. Between 1977 and 1983, ten major, six middle sized, and thirty small hatcheries were built, as well as three major fishways, one spawning channel and thirteen distributory channels.

Pre-season plans attempt to meet harvest objectives and achieve spawning escapement. Since 1980 the pre-season plan has been published in the Commercial Fishing Guide. These pre-season plans are based on,

abundance, timing and migration routes of the returning runs, estimated spawning requirements, aspirations of fishermen and policy objectives. Present policies give first priority to biological needs, second to the requirements of the Indian fishery, and third to the commercial and recreational fisheries (Pearse, 1982: 40)

The pre-season plan is confounded by two major complicating factors. First, DFO is not in command of complete information on the size or timing of returning salmon runs. Second, given the high mobility of the salmon fleet, they can rarely predict the number of vessels which will participate in a particular fishery.

In-season management is the fourth objective of Fisheries Policy. This involves the infield monitoring of the fishery and the adjustment of the pre-season plan as warranted. This task is

the responsibility of the Field Services Branch whose Head Office is in Vancouver. Their information is provided by the Field Manager from the Fisheries Officers on the grounds. The monitoring involves accounting for the amount of fish that passes through the fishery such that when runs deviate from pre-season estimates, fishing plans are altered. According to Pearse (1982: 41), the method of assessing escapement is done by,

estimating the number of salmon reaching the spawning grounds; but, in some cases, earlier information is needed and estimates are made of fish leaving the fishing area.

For the Department of Fisheries the monitoring of escapements is an extremely difficult task. Precise knowledge of when the fish will enter the rivers and streams, or which stocks are entering, is often not available.

McMullan (1987b: 147) has aptly depicted the perceptions of many observers of DFO's role in the industry:

In the end, the "great Canadian fish chase" involved increasing numbers of experts, bureaucrats, and enforcement officers apprehending, separating, processing, and returning fishers to the sea, newly tagged, ready to chase the appropriate fish in the required location at the right time.

These difficulties are in part, a result of the variety in the patterns of fishing. Being an anadromous fish - spawning in inland fresh water streams, migrating to sea for their adult life and returning home to their spawning grounds to die - salmon are susceptible to commercial fishing activity along their migration route. Each of the individual species is divided into separate stocks which originate and terminate in particular spawning

grounds. It is the furthest offshore fishery which has the greatest opportunity to intercept mixed stocks. While conversely, the closest inshore fishery will have the greatest opportunity to target specific stocks. As Copes (1988: 7) argues:

Fishing fleets that are furthest out to sea have the first opportunity to capture returning fish and thus the largest amounts of fish available for exploitation. Fishing groups on the river can exploit only what is left of the stocks after other groups have taken their catch.

In terms of the commercial salmon fishery, the trollers have access to the largest amount of fish while the gillnetters and seiners have access to the least amount. The order of interception creates disputes among the various user groups.

Of the three gear types, the troller is the most difficult to monitor and manage. In practice the seiner and the gillnetter, which get last crack at the fish, are the easiest to manage. Many of the seine and gillnet fishers who were interviewed expressed some bitterness over this and remarked - "we are the ones who do all the conserving". This sentiment is not unfounded and is confirmed by Pearse (1982: 4):

Openings and closures are manipulated by area and gear, and final adjustments are made by regulating the catch of the last, most inshore, fishing activity.

In sum, it is easy to see, given the extreme variability of the resource, and the lack of control over the resource, the difficulties which face fisheries managers.

There are multiple of methods of keeping fish fresh until they are either delivered to a 'packer', 'fish camps', or port

towns and cities. The method utilized depends upon the length of the fishing trip: day fishing requires little more than ice, while freezing capabilities are necessary for longer trips. Icing will preserve fish for up to ten days. Freezers, either cold-plate or air blast, will keep fish up to one year. Freezers, are most common among the troll fleet. Some of the seiner fleet use a 'champagne system', a chilled brine solution for preserving.

The fishing fleet of the west coast utilizes relatively advanced electronic equipment. Common electronics include: the Loran, Radar, Autopilot, Depth Finders, Sonar, VHF and CB radios. Fishers, mostly trollers, use a loran navigational device to locate the position of the vessel from the loran radio signal. Lorans are important in trolling. Radar is used for navigation in narrow channels, coastal areas, under poor visibility conditions, and at night. The CB, or Citizen's Band radio, is common on all fishing vessels. With increasing congestion on the air waves, some fishers also use Single Sideband radios, and many use VHF's (Very High Frequency radios). The Single Sideband has a long range, picks up distant weather reports, and Fisheries and Oceans broadcasts.

A fisherman explains the use of radio electronics¹³ :

We have mickey mouse and VHF and all kinds. We use to have these old AM phones. I think some people are still using it, you are allowed to use it until 1983 or something. Then the Mickey Mouse, most of the, the communication is done on the VHF now. It is much quieter than the AM. And I think it will go a little more distance. Most of the big trollers, they have sidebands now. We, I

don't have a Sideband. You're talking about 3 to 4,000 dollars. (F38)

This summarizes, in brief, the physical and technical conditions of work in the Pacific coast commercial fisheries. The next section will discuss the division of labour within these conditions. Topics include: size, payment and recruitment to fishing crews; division of labour; hierarchy and ownership. The generalizations stated in the receding section were derived inductively from observation during the fieldwork and interview stages. These were integrated with some of the relevant literature to provide additional descriptive insights. The following will elaborate this description with reference to the division of labour in the Pacific coast fishery as it was observed during the fieldwork and reported by fishers during interviews.

The Division of Labour

In the gillnet fishery the season begins in early July and lasts until the end of September. Some fishers, in particular Fraser River gillnetters, may fish for a total of 13 days within the season. Others, those prepared to travel to the west and north coast, will fish approximately three days per week throughout the approximately four month season. Gillnetters and seiners fish the inshore areas.

It is not uncommon for gillnet fishers to fish alone, however many take one deckhand, and some take their spouses and/or children as crew. A gillnet fisherman explained why he preferred to take family as crew:

I've had other people out with me, and even ah, nephews, on summer holidays. And there just wasn't enough money, in my type of

fishery to warrant paying someone a share basis, or a reasonable wage. So by taking a family member along you had some assistance, with, you know. A person can get some rest while travelling, racking, helping with the nets, and besides, the company, was the most important. Somebody to be with more than anything. Someone you know, ah, it would be pretty hard for a person like me, to pick up a stranger and take him with me under those close contacts. The boat's pretty small you, so ah, family members, whether you are out there or whether you are at home, its the same thing. (F31)

The crew share for deckhands on gillnetters ranges from 10% to 25% of the catch before expenses are deducted¹⁴. The percentage is calculated from gross receipts of fish sold to the 'cash buyer', cannery or 'fish packer'. The deckhands receive their percentage 'off the top'. Of the remainder, the skipper pays expenses and keeps the balance. It is customary for beginning deckhands - 'greenhorns' - to receive 10%. Those returning for a second or consecutive season are paid 15 to 20%. Deckhands who receive 25% are rare. This percentage is given to those deckhands who are capable of full responsibility for the boat and fishing strategy. There is a limited division of labour, tasks are variable depending upon fishing conditions, and specific activities (i.e., travelling, net racking, cooking, hauling gear, cleaning and icing fish).

13 General characteristics of the persons who provided each quotation are identified by a code number (e.g., F36) following each quote. These codes and characteristics are provided in Appendix D.

14 When I was offered and accepted a job as a deckhand, in 1982, my share was 10% of the total catch before expenses, i.e., "off the top". This figure was consistently reported by fishermen in the interviews as the most common share for a "greenhorn".

In the salmon troll fishery the season officially opens in the middle of April, however many start in the middle of June, depending upon the size of returning salmon runs. The season 'closes' in the middle or end of September. Trollers typically fish the mid-water and offshore areas. Trolling is common to the west coast of Vancouver Island and the north coast. Troll fishing on the 'inside' is restricted. An 'outside' troller explained it this way:

Okay, ... first off I would have normally commenced into trolling in the Gulf of Georgia, my boat is a combination gillnet-troll, primarily a gillnetter, normally I would have started in the Gulf, remember the Federal Government will no longer allow me to do that, with the new licence scheme, if you troll in the Gulf of Georgia, that's all they will let you do. So, I was disenfranchised from 15 April until the end of June. See, so, I can tell you where I did start from, bitterly, at the end of June (chuckles), having watched several of my friends make \$20,000 plus in the Gulf of Georgia before I ever left the dock, because they opted for the Gulf. (F49)

Fishers who opt to fish the 'inside' may not fish any other area. (See Figures 3 and 4) Those electing for an 'outside' licence may participate in any troll or net fishery on the coast (Department of Fisheries and Oceans, 1982: 35).

In trolling it is common for fishers to take deckhands. Crews may range from one (i.e., skipper only) to five (i.e., skipper plus four deckhands), depending upon the size of boat and area fished. The recruitment to salmon trollers is through word of mouth, personal interview, kinship, and in some cases ads in local newspapers. Crews are recruited by the season. It is common for trollers to recruit new deckhands every season,

although some have the same crew for a series of seasons. Deckhands are paid a percentage of the catch, 10% to 25%, depending upon skill and expertise and the number of crew. The share allocation is determined in a fashion similar to that in the gillnet fishery (i.e., 10 to 20%).

In the seinenet fishery, the season opens the beginning of July and lasts until the end of September. Openings are dependent upon the size of returning salmon runs. Seinenet fishing, like gillnet fishing, is limited to the inshore areas, 'behind the line'. The Maps of Areas (i.e., Figures 3 and 4) indicate the line which demarcates the area within which the seiners and gillnetters may fish.

'The line', as indicated in the Maps of Areas, is drawn along the coast from headland to headland. Incoming salmon enter the streams and rivers from the ocean. Fish are accessible to net fishers only once they have entered the designated area and have crossed 'the line'. Many fishers believe, with some justification, that the greatest number of fish will be caught at 'the line'. This is called "fishing the line". It is a very competitive strategy involving a certain jockeying for position which is complicated by shifting tides and drifting nets and boats.

A seine boat skipper explained fishing 'the line':

It means, you know, ah, they'll set an imaginary line, you know, there's the boundary, bang, you can't go ... there's nothing in the water ... you can't get a pencil, a knife, or a post or a string or a rope, its an imaginary line, from this point to that point. Okay, if you are in between two points, its almost impossible to tell

which side of that imaginary line you are on, unless you are at one end of it, or if you've got something to site yourself by. Okay, but if you are fishing a competitive area, you're invariably going to drift over that line, inevitably, once. You are going to do it, and you're not going to even know you are across that line because you can't really tell.
(F45)

Due to the efficiency of the seiner, it is often the case that this fishery may be limited to one day, or in some cases twenty minutes for one day per week.

Seiners require the largest crew of the three gear types. It is common for these vessels to have a crew of four men plus a skipper. Crews are recruited through informal means such as: word of mouth, friendship, family, and personal interview. Commonly, seiner crews develop close personal friendships and are often family. However, in contrast to gillnetter and troller crews, seiner deckhands are unionized, and are covered by a union contract. Seiner deckhands are required to be members of the United Fishermen and Allied Workers Union (UFAWU). Skippers, generally belong to the Vessel Owners Association. It is almost unheard of for a seiner vessel to leave port with nonunion deckhands. Seiner deckhands are the only crew on the Pacific coast who are mandatory members of the UFAWU.

The seiner deckhands are members of the UFAWU, 'the union', primarily because they are a necessity on board a salmon seiner. In contrast, it is possible for trollers and gillnetters to fish without any crew. Secondly, the seiner crews have traditionally been more active in 'the union' than the other gear types. It was through the union that the share agreement was formalized. North and Griffin (1974: 20) provides a good discussion on the

turbulent early years of the UFAWU and the establishment of the share system:

Old time salmon seiners will recall the dismal conditions they worked under in the twenties and thirties and the improvements established under the union's share agreement. Some of them will remember their 1941 strike which wiped out the 7/12 crew share, replacing it with the 7/11, establishing gradually improved conditions and protecting crews from unjustified charges such as vessel licence.

It must also be kept in mind that during these early years, it was often the case that fishers would fish for the company, or run a company boat, until they acquired enough capital to purchase their own vessel. Often it was the case that such fishers were crewmen or skippers on seiners.

The union agreement requires that the seiner crew which includes the engineer and the cook but excludes the skipper, be paid their share of "seven-elevenths" of the total catch minus fuel and groceries. The skipper receives the boat and net share which is the remaining four-elevenths.

Skippers may also receive a company bonus of approximately one-twenty-eighth. This 'bonus' is paid to the skipper by the company he delivers his fish to. The bonus is usually paid at the end of the season, most often around Christmas. The 'bonus' averages around 10% of the years receipts. Recently, some skippers have complained that their yearly bonus has not been forthcoming from the companies. In other words, the bonus system is not formalized but is an informal agreement between skippers and the canneries. According to Pinkerton (1987: 76)

the bonus system is distinct from the charter payment. She states:

The charter, sometimes also called a bonus, is paid "under the table" to the owner of the boat and the net, and is significant in competition between processors. Unless the boat is processor-owned, the owner of the boat and net is usually also the skipper. The charter payment is a covert form of price competition: it is usually not shared with the crew, amounts are not known by the crew (nor by other skippers), and it is not subject to price negotiation between the UFAWU and the Fisheries Association.

On the seiners there is a division of labour between the skipper, engineer (or deckboss), the cook (who also works on deck), and the deckhands (e.g., tie-up man, skiff man, and sometimes a general hand). The following crew description is typical of the division of labour on most seiners. In this case, the crew was 'setting the net' from a 'beachline':

He was a tie-up, a skiff man, he rowed the skiff to shore, let the guy off to tie-up and all that, and ah, we have two men in the skiff, one ties up and ah, one rows the skiff and has to tie up the sea anchor, there's work for him to. Then they come back to the boat and, they have jobs on the boat when you are taking the net back. They have different jobs. And, ah, we have one on the boat, he's usually the drum man and engineer, he has to fix things on the boat. And we have one, he's a cook but ah, also is not strictly cooking either, you know they have to help out on deck there. Dressing fish and net work you know, doing all kinds of stuff. (F73)

Seiner crews, more than any others in the industry, stay together for a series of seasons. Some seiner crew members have worked on the same vessel for up to fourteen years. A skipper of a seiner described his crew this way:

Well, they, they gotta have some experience, you gotta get to know them. Because you have to live together with them guys and they have

to work. And another thing, is that on a fish boat we work on a share basis, and ah, if you're gonna have one lazy guy, and the other guys have to pack him, then pretty soon you don't have to fire him, the rest of the guys will tell him he's not needed anymore. You know, if you can understand what I mean. And that way, its pretty nice that we still have that, you see, so. Usually I try to get an efficient crew on board there, so everybody does his work. (Do you have the same crew?) Yes, its been awhile, maybe four or five years. The odd guy changes, he buys his own boat or goes someplace else, but mostly the guys hang in there. (F73)

The following Table is a summary of this discussion.

Table 4

Physical and Technical Conditions and Work
Organization in the Canadian Pacific Coast
Commercial Salmon Fishery by Type of Gear

Physical and Technical Conditions and Work Organization	Gear			
		Gillnet	Troll	Purse Seine
Species of Fish	salmon	salmon	salmon	
Crew	1 - 2	1 - 3*	6 - 7	
Trip**	1 - 3 days	open	1 - 3 days	
Season	June - Sept.	Apr. - Sept.	June - Sept.	
Recruitment	informal	informal	semi-formal	
Division of Labour	skipper deckhand	skipper deckhand	skipper engineer skiff man tie-up man cook	
Hierarchy	no	some	some	
Ownership	fishermen	fishermen	fishermen	

* - In one instance, a salmon troller indicated that during the height of the season he took four deckhands with him. This number of crew is unusual. This skipper was a highly competitive offshore freezer-troller, who was described by one of his crew as a 'slave driver'. However, he had many of the same crew for four years.

** - Trip refers to actual fishing time plus travel time from the nearest port or harbour to the fishing grounds. It is the most common time period. It may extend up to 12 to 14 days depending upon the length of the opening, the rate of deterioration of the ice packed fish, and the fishers' stocks of supplies.

This discussion has brought to light the following characteristics of the Pacific coast commercial fishery. The Pacific coast commercial fisheries are distinct from other commercial fisheries in that the predominant species is salmon. However, there are similarities. In this fishery, as in the other fisheries discussed in Chapter Three, the work organization varies with the type of fishing gear and with the area fished. In the salmon fishery, crews vary from one to five men, and are recruited informally, or, as in the case of the seiners, semiformally. The division of labour tends to be diffuse rather than specific.

Salmon are the mainstay of the industry. The roe herring seiner and salmon 'A' licence tabs have the highest fees which are charged by DFO. The fishery utilizes three types of fishing gear: gillnet, troll, and purse seine. There are more trollers than seiners and more gillnetters than trollers. Gillnetters are the most numerous of the gear types. The average gillnet or troll vessel is 30 to 39 feet; the seiners average 60 to 69 feet. Trollers utilize mid-water and offshore areas, the gillnetter and seiner the inshore. The seiner fishery has the most restrictions on fishing time.

Crew size and tenure varies with gear type. Seiner crews are the largest and most stable. Some men will remain with a particular skipper for 10 to 14 years. Gillnet and troll deckhands are often employed for only one season. Only for seiner crews is there a union agreement for the catch division, all other deckhands informally negotiate their share of the catch with the individual skipper.

It is these technical conditions of work, in conjunction with the unique physical environment which give rise to the specific social relations of the fishery.

The Social Relations of Work

The following section will describe the fieldwork and interview data with reference to the social relations among fishers which from were observed to be associated with the peculiar physical and technical conditions of the industry. It will demonstrate how the lack of control over the resource, the separation of work and residence, and exposure to uncertainty and risks, give rise to particular social relations. In this discussion it will be argued that relationships among fishers are simultaneously cooperative/harmonious and competitive/conflictual. Topics include: methods of crew recruitment, the egalitarianism among crews and the cooperation and competition between skippers¹⁵.

In Britain, Tunstall (1969) found that apprenticeship training was an important factor in recruiting to the fishing industry. The formality of apprenticeship training is not relevant to the Pacific coast fisheries. More men here enter by 'informal' means, and individual characteristics (e.g., hardworking, pleasant personality, ability to work without supervision, and, awareness or the ability to identify important aspects of the environment, the boat and the gear).

¹⁵ These data are reported with reference to the total group interviewed. Differences between gear types will be reported only when there is a perceived relevant difference.

The selection process is done through word of mouth (i.e., personal recommendations, or by interview). The advantages to informal recruiting are: 1) skippers can select on the individual characteristics they perceive important for the job, and, 2) training is learned in the specific environment and tailored to individual needs.

Most skippers hire on individualistic criterion, which are consistent with the physical and social demands of the job. While formal maritime knowledge is important, personal characteristics - the ability to work hard, learn quickly and the flexibility to adapt to the technical and social conditions of the work environment are primarily recruitment criteria. In the words of a troller skipper:

Um, well, its usually, I'm biased, (chuckles), good help, nonsmokers, and nondrinkers, and um. You have, to have ... I'm not really looking for sea experience as such, just confirmation that you don't get seasick, and then I usually train from there on. Um, not too often that I get people from courses that are offered, but I would almost rather have a greenhorn that I start myself. People that have gone through these courses, they seem to know a little bit too much, and, um, that's not what I want from a crew. I guess everybody wants their crew to be trained for them, eh, and ah, that's basically it. (F48)

I questioned the skippers I met as to what they consider to be the attributes of a good crewman. They consistently cited: flexibility, awareness, hardworking, ability to learn, and sociability. Consistent with the data reported by Tunstall (1969), it seems that a good crewman, is one who wants to be a skipper one day.

Informal, personal relations characterize the hiring and selection of crews. Many skippers suggest personal relations are important in crew selection. One of the main criterion for skippers is a harmonious crew. One method of acquiring such a crew is through the hiring of the friends of crew members. Among the purse seiner fleet, skippers will not, and are not expected to, hire sight unseen from the union hall.

While skippers are not required to hire directly from the union, the majority of seiners are union boats. When asked about the union a skipper replied,

there are a few of us that sail nonunion, but not too many. (Why?) Well, you know, you, right away you could get into a hassle with the union. And ah, the ones that primarily sail nonunion, they are from out of town someplace, nobody knows, the union don't know they exist. But this boat here is well known.... I'm well known and it would be futile for me to try to sail without clearing. I have no real reason not to, you know, its no skin off my rear end. I mean, I was a union member when I was a crew man, so I don't really see anything wrong with it. You know, I know, if it wasn't for the union, they'd probably be out there fishing for next to nothing. (F35)

Since skippers do not have to accept choices made by a union hiring hall, they often put into effect their own biases. Ethnic background¹⁶ is often a factor in their choice, and also age, and

¹⁶ In the group of fishers who were interviewed for this study the predominant ethnic group was of British origins (approximately 40%). Other groups included Scandinavians (approximately 18%), Yugoslavians (approximately 10%), Northern Europeans (approximately 18%) and Japanese (approximately 5%). This group were residents of Greater Vancouver, therefore the representation of Indians was very low. It is estimated that the percentage of Indian participation in the fishery is approximately 14% of the total fleet (Marchak, 1987b: 237).

in some cases sex. Japanese tend to hire Japanese, and largely operate gillnet boats. Seiners, on the other hand, are often operated by Yugoslavians, and have all male crews. On the seiners, women are often considered to be possible sources of dissension amongst the crew. This is true for single women, as well as for wives of skippers. In one instance, a skipper explained how he had to exclude his wife from going fishing because she wasn't accepted by the crew.

These types of divisions (i.e., ethnicity, age and sex) while possible sources of conflict among fishers are of secondary importance. The primary mechanism of crew recruitment is interrelated with the technical and physical constraints of fishing. As the Norrs have also argued, these conditions give rise to recruitment for skill and compatibility, an emphasis on achievement and performance.

In the 1950s and 1960s men usually worked on company boats until they had enough capital to purchase their own or part of a boat either from the company they worked for (e.g., ABC Fishing, Nelson Bros, BC Packers, Canadian Fishing Company), privately (e.g., Fishermen's Cooperative and Credit Union), or from a family member. Without exception, all the owner/operators I spoke with purchased their boat and equipment with money earned from fishing. In other words, -skippers have all been 'on the deck' at one time. This story by one skipper is typical:

When I started, I started with my dad, after school and summer holidays, things like that. I'd go with him in the late '30s and early '40s. In '42 I worked for BC Packers on a fish buying boat. '43 to '44 in the navy. '45 back to work for BC Packers on a fish

buying boat, worked on the camps. Then I took a couple of years out, I worked in a hardware store. Then in '48 I went back fishing, gillnetting, on my own, I bought a boat in '48. I've been doing it ever since. I've served my time. (F75)

In sum, recruitment to the commercial fisheries among the Greater Vancouver fishers is characterized by informal, particularist and nonbureaucratic procedures. Their work organization also exhibits cooperative and egalitarian relations.

In seeming contradiction to the individualism that permeates the industry, a fisherman-skipper does not hold himself aloof from his fellow fishers or exercise autocratic power over his crew. The organization of work in the industry both on an individual boat among the crew, or between the boats at the same fishing grounds, requires co-operation, and the harmonious integration of work tasks.

Both between boats and among crews, fishers are constantly alert to their physical and social environment. Constant surveillance of their environment is second nature to skippers. At times this awareness is a source of humour. For example, a fisher may attempt to fool fellow fishers by appearing to be mending nets instead of fishing. As one fisherman explained:

But, I've done this, I've done this so many times, that I was coming up to another friend of mine, and he's a good friend of mine, and I could see, I was about two miles away, and I put the binoculars on him, and I was watching, and right away I could see him tell the guy to go get the needle, and here he is with the needle and I'm watching, and all they're doing is just passing the needle through, they're not tying it up, or something, you know, so when I came along side I told him, I says, you know, if you're going to do that, you better do it, put knots on the end (laughs). They knew I was watching, you see, but they didn't

realize it until I came there, but I was watching with binoculars, I see, but they didn't want me to set there because there was quite a bit of fish there. So anyway. (What did you do?) I didn't like that place anyway, but there was a lot of fish, I knew he was getting fish. So I went to the next point, and kept setting. But he didn't want to get bothered there. But I had to go tell him (laughs) that I knew what he was trying to pull (laughs). (F66)

There is, among these fishers, an incongruous mixture of both co-operation/harmony and competition/conflict.

Inter-boat co-operation is necessary to maintain harmonious relationships, facilitate the exchange of information and as a provision for assistance in times of need (e.g., accidents). Consequently, most skippers will not openly criticize or willfully jeopardize each others position. The lack of interference is most obvious and perplexing when fishers seem to turn a blind eye to the breaking of regulations by their peers.

The extent of fisheries violations are unknown. However, estimates indicate the problem is of some significance. Pearse estimates that up to 10 to 15% of reported landings may be accounted for by illegal fishing efforts. The highest percentage of charges are laid for general violations at 30% of all charges. These include: "fishing in closed areas, during closed seasons for certain species and illegal fishing in rivers and at sea" (Pearse, 1982: 207). In 1981, according to Pearse (1982: 207), there were 1014 charges under the Fisheries Act, which resulted in 497 convictions.

While co-operation springs from the physical and technical constraints of the fishery, conflict springs from the common property nature of the resource. All skippers are ultimately in

competition for their share of the fishing pie. This situation sometimes leads to hostility and open conflict. However, this conflict is ameliorated by the shared exposure of the group as a whole to risks and uncertainty, separation of workplace from residence and the difficulty of maintaining clear-cut control of productive factors.

The variability of the weather and the fish stocks also affects working relations. The fluid nature of fishing, with its constant change, requires adaptability on the part of skippers and crews. In many cases a man does not know when, where, or for how long he will be fishing. A fisherman describes it this way:

Like even when we had a twelve day opening on the Skeena, it was probably going to be open for four days or so. You know, but it was announced day by day, so you couldn't possible stay that long with iced fish. Like two weeks, well four or five days is most of us gillnetters keep our fish. But we didn't know when it was going to close. Traditionally they close it at six, then in the morning they would say, there is another 24 hour extension. And they never even hinted that there would be further time. Day by day we go along, and then by the sixth day we started to wonder that maybe we had better go in with our fish or change our net or do this. But we are under the impression that its going to be closed at six. And here, twelve days later its closed. (F44)

In a congested opening there is a large number of boats, and a lot of "gear in the water". This also requires patience and flexibility, and often difficult adjustments, where one's mistake could be another's disaster. Experienced fishers know they must adjust their behavior to variable circumstances and the activities of other fishers.

A fisher who wants "to be on the fish", will often make himself known to as wide a circle of fishers as possible. To this end, he finds it advantageous and often pleasurable to visit with other fishers while either at the fishing grounds, or at the dock. Most fishers, attempt to juggle socializing with work requirements, and although parties on boats are not uncommon, all hands are expected to be on deck when its time to leave for the fishing grounds. The actual timing of leaving the dock is often critical. Travelling time may be cut in half in some cases, if the boat travels with the outgoing or incoming tide, which ever may be the case.

Fishers know the favorite pubs and lounges of their peers. Consistent with the findings reported by Tunstall (1969) of the Hull fishers, fishers frequent bars to drink, shoot pool, play cards and relax with other fishers. But in contrast to the interpretation Tunstall suggests, it may also be the case that fishers do not drink and "buy drinks for the house" to impress their shore bound acquaintances and friends. Instead, I would suggest a better explanation is one offered to me by a fisherman, "We like to go to the bars and buy drinks, because we like to socialize and we like people". The desire to socialize is no doubt heightened by the pressures of their work and the isolation from friends and family¹⁷ .

Fish are constantly shifting in their locations, and the Department of Fisheries and Oceans imposing openings and closures,

¹⁷ It was reported on a number of occasions that there are two or three bars in the Greater Vancouver area that fishers frequent to visit with other fishers, friends and family.

so that fishers are perpetually in search of new and better fishing grounds. During the searching, fishers come in contact with other fishers, and fish 'packers', and 'buyers' who inform them of catch levels in other fishing areas.

Fishers, in general, who know the greatest number of people on the coast, both other fishers and representatives of the companies, may know, at any given time where the fish are being caught. Personal relations are explained by this troller skipper,

I tried it alone last year with no group and it was tough going. With a group, you can go in and unload, say you've got some repairs to do, might take you three days. In the meantime, the fish move four to five miles from where you got them last ... or fifty miles. ... So what you do is when you get out, the guys phone you and they've been following them and keeping track. And if there's a group of a dozen or so they can cover a lot of territory. Each guy spreads out ten or fifteen miles and somebody finds them again, or a different pocket. So then you can come out of the harbour and instead of searching for a couple of days, using up a bunch of fuel, and looking for a big fleet - if the fog is there you'll never find them anyway. (F80)

This quotation illustrates how fishers, although they are ultimately in competition, must, in order to be successful, maintain good interpersonal relations. This is derived from the high mobility of the fish and the common property problem. The underlying tension between cooperation and conflict among fishers is exacerbated when stocks are in decline and results in (Marchak, 1986: 686),

sometimes turning fishermen against each other, but sometimes giving rise to coalitions struggling against corporate vessel-owners, processors, and/or the Federal Department of Fisheries.

Fishers adopt strategies to deal with these physical constraints. It is not always the case that fishers are completely candid with each other. In some situations they may give false information. Under these conditions they are usually attempting to protect a fishing spot from becoming overcrowded. In these cases they often say that "there's not enough fish to go around". However, more often than outright misinformation, many skippers usually either under-report their success, or are vague about their location. This vagueness is considered an acceptable response given the lack of control and the variability of the resource.

The use of deceptive strategies by offshore Newfoundland trawlers skippers is well depicted by Andersen (1972: 139):

While employing the deceptive strategies described earlier, he strives otherwise to convey an image of good will and of skill to his audience on other vessels. Although he cannot openly help them by giving away information that might jeopardize his own crowd's catch, he does offer noncritical advice and information and never openly tries to "hurt the other fellow by his actions.

Fishing strategy involves the subtle manipulation and deciphering of radio communications. One fisherman described it this way:

No fisherman is ever ... eh, cranky or mad when he is catching fish, regardless of all other situations. If he gets on the radio phone and screams and yells about how bad his fishing is and how bad things are and goes on and on, if you can tell he's in a good mood, you know he's lying, through his teeth. So you listen for that and try and see, ... you gotta know the person. So you get to know the person and you listen to him for days and

years. You get to know by listening for days and years. (F71)

The question of information sharing versus secrecy is an important issue. Restrictive communications have been well documented in the anthropological and sociological literature on fishing (Andersen & Wadel, 1972b). In an extreme statement of this, Johnson (1979: 246) argues:

Given the intensive competition between boats and the efforts to guard one's own information while discovering the information of others, a social climate rife with secretiveness, lying, avoidance, and general suspicion is generated.

While Johnson may be overstating his case, it is true that there is a certain amount of restrictive, as well as raucous communication between boats among the fishing fleet.

Summary

In summary, this chapter has described four issues pertaining to the organization of work in the Pacific coast commercial fisheries. Emphasis has been placed on salmon and roe herring. This emphasis is congruent with the structure of the industry where salmon is the predominant species harvested, and where a great number of salmon fishers are also active in the roe herring fishery. This chapter was divided into three sections: History, Technical and Physical Conditions, and Social Relations of Work. In brief, the discussion drew the following conclusions.

First, regarding the historical conditions, it was argued that the British Columbia commercial fishery has been, since the 1890s, geared toward an export market, characterized by independent commodity production in the harvesting sector, and concentration in the processing sector. This section argued that

at no time it is possible to argue that fishers could be characterized as wage-labour.

Second, the chapter described the physical and technical conditions in the industry. Topics included: types of gear, locations, species harvested, licensing and management objectives. The general conclusion of this section was that these fisheries are comparable to other small scale fisheries in that the type of gear varies with the fishing area. There are three different gear types: troll, purse seine and gillnet, which exploit two areas: offshore/mid-water, and, inshore. The size of crew varies with gear type. Seiners have the largest crew (e.g., 6 to 7 men), gillnetters the smallest (e.g., 1 to 2 men).

The second section also provided a detailed description of the division of labour in the salmon fishery. It was described how, among those fishers who were observed, the work organization in this industry exhibits a relatively non-hierarchical chain of command, lack of task specialization, and informal, egalitarian work groups. The final section, examined the social relations of work both among the crew of a particular vessel as well as across the fleet in general. In this section the contradiction inherent in the common property nature of the resource was brought to light. Specifically, the social relations were found to be characterized by a rather unsettling and sometimes explosive mixture of cooperation and competition.

Consistent with previous chapters, the data presented here indicate that for these fishers, Canadian Pacific coast commercial fishing is a specific adaptation to physical conditions. Further,

these conditions are associated with a nonhierarchical and egalitarian structure of work. The division of labour tends to be relatively diffuse. The social relations of work have been described as being informal, affective and cooperative. However, given the unique constraints of the fishery (e.g., the common-property nature of the resource) these same relations are also, competitive and inherently divisive. These unique conditions provide the basis for the occupational community and work culture of fishers. The following chapter will discuss this "culture of Pacific coast fishers".

CHAPTER V

THE WORK CULTURE OF PACIFIC COAST FISHERS

I breathed deeply, I revelled in the vastness of the opened horizon, in the different atmosphere that seemed to vibrate with a toil of life, with the energy of an impeccable world. This sky and this sea were open to me. (J. Conrad, Lord Jim)

Fishing is one of the few occupations where significant numbers of workers are also owners of the means of production. While this is not true for all, it is for most Pacific coast fishers. In the 1983 DFO data analyzed by this author (Lattey and Burns, 1984) it was found that in the Greater Vancouver area a number of fishing vessel licences were owned by canning companies. Some of the major holders included: BC Packers, Cassiar Packing, Trans Pacific, Canfisco, MacMillan, Ocean Fisheries, and Property Marine. The total of company held licences in the Greater Vancouver area is between 400 and 500. The number of owner-operators in the area is estimated at 1,000 to 1,500. Therefore approximately two thirds of the fleet may be privately owned. As noted in Chapter Four it appears that fisher ownership is on the increase. For example, the major company owning licences (i.e., BC Packers) recently sold the majority of its northern vessel licences. As Pearse (1982: 155) states:

In 1982 BC Packers Limited sold 243 vessels and 252 licences (most of its northern gillnet rental fleet) to the Northern Native Fishing Corporation ...

The divestment of vessel ownership and licences by the processing sector to fishers in the harvesting sector may have the overall

consequence of increasing fisher indebtedness, but it may also increase their control over their labour process.

The ownership of vessels and other gear leads to an independence and freedom to determine the techniques, timing, and pace of work, which in turn generates a unique "occupational community"¹. The notion of occupational community is based on the conclusion that persons who work in the same trade, craft, or occupation share experiences and a way of life, so that as a group they share a culture.

Being owners of their means of production, Pacific coast fishers are marginal to the dominant wage-labour relations of the political economies of Canada and British Columbia. Further to this marginalization, the fishing season takes fishers away from their urban homes and families reinforcing their self perceived sense of social distinctiveness. This type of marginality is a main component in the existence of an occupational community.

An occupational community (e.g., Applebaum, 1981; Goode, 1957; Kerr and Siegel, 1954; Lipset, 1956; Pilcher, 1972; Riemer, 1982) represents a particular relationship between work and nonwork lives. This implies that members are affected by their work in such a way that their nonwork lives are permeated by their work relations, and their attendant value systems. The separation of work and leisure exists less in the crafts and professions than in factory, or assembly work. These differences

¹ It must be kept in mind that the complexities of the structural conditions of fishermen, in particular their economic dependency on finance capital, are outside the scope of this discussion.

are attributed to worker autonomy, independence and ownership of the means of production.

Occupational communities are also generated by the following three factors: perceived sense of community, self-image, acceptance of evaluations only from peers, and the sharing of problems and experiences with workmates. They are also related to job satisfaction which has been found to be associated with supervision, participation in decision making, integration in work groups, and prestige.

Work culture is another part of occupational communities. This involves the acquisition and use of tools, apparel, jargon, and joking behavior. Finally, research has pointed to the importance of working conditions, in particular the existence of physical and sometimes life threatening hazards, in the development of occupational cultures and communities.

The work culture of Greater Vancouver commercial fishers will be described in reference to these factors. The objective here is to present evidence which will capture a portrait of the work life of this specialized occupation. This chapter is divided into five sections: Occupational Community (i.e., perceived sense of community, self-image, peer evaluations, convergence of work and nonwork lives, sharing of problems and experiences), work culture (i.e., the acquisition of work tools and clothing, jargon and joking behavior), Job Satisfaction (i.e., supervisors, participation in decision making, integrated work groups, and prestige), Uncertainty and Dissatisfaction

(i.e., sense of insecurity, and accidents, danger and death), and Summary.

This research is qualitative and exploratory and has implications for increasing our understanding of the relationship between work technology, the organization of work, and the development of unique cultural occupational communities among the residents of the Greater Vancouver area who are also owner/operators of commercial fishing vessels.

Occupational Community

The following will describe the occupational community of Greater Vancouver commercial fishers with reference to a series of conceptual categories. Topics include: *perceived sense of community, self-image, peer evaluations, convergence of work and nonwork lives, and, sharing problems and experiences*. Each of these sensitizing concepts is discussed with reference to the data collected through participant observation and interviews. Quotations are provided in each subsection to illustrate and bring to life the relevance of each concept. This literary and humanistic style is the most common form of reporting data in qualitative research (Kidder, 1983).

Community²

This question is important in regard to the extent fishers in the lower mainland form a community such that informal shore-

² The following discussion of "Community" and "Self-Image" were abstracted from a paper entitled "Independence and Autonomy: The Culture of Fishermen" prepared and delivered by this author to the Western Association of Sociology and Anthropology meetings, Winnipeg, 1985.

based interactions are with and in the company of other fishers. In response to the question: "Do you think fishermen share a sense of community - Are most of your friends other fishermen?", about 68% of the group reported affirmatively, 22% negatively, and 9% gave partial or ambivalent responses. Some typical positive responses to this question are the following:

Yah, you are a fisherman, you associate with fishermen, its just natural. (F75)

All my friends are fishermen. Most of my close friends are fishermen. We grew up together. All fish the river together still. Real close friends. (F74)

Yes, very much so. Ah, yah, well I guess its, you have things in common with them. Ah, common trust, which is a very strong factor, um. I'll explain that further. I've always found that fishermen, the ones I've known anyways, are the most honest people I've ever known, and ah, some of them are the most haywire, rough, and mean, but at least they are honest. And ah, I find that that's one of the most gratifying things that ah, that I can find in life, to deal with honest people. (F51)

Some typical responses are the following.

No. We don't drink like some of the others do, don't know what they do. See enough during the day. (F36)

No, not fishermen, no. That's the last I visit ... I don't hang around beer parlours and that, that they like to, and I don't, I'm more or less on my own. I'm an outcast in a group sometimes. (F32)

No, of all our friends there is just one that a fisherman, besides our son. Although I like to think I'm friendly with everybody. (F59)

An example of a partial or ambivalent response would be the following.

Ah, a good number of my friends are fishermen, yes, but, excuse me, other than that there are a good number, well, I'd say 30% of my friends aren't fishermen. (F56)

I'd probably have more nonfishing than fishing friends. (why?)...Ah, hard to say. I don't appreciate sitting around all winter talking about fish. (F72)

Self Image

A question aimed at understanding the subjective identification and commitment to fishing asked, "Do you prefer fishing to other occupations, why?" To this question about 90% of our respondents answered in the affirmative, 6% ambivalently, and 3% negatively. Some typical positive responses to this question are the following.

Oh, yah, been doing it all my life, I guess. I just, like. If I had to do it over again, I'd do it over again. But I mean, I can see the writing on the wall, the way its going, its going to be finished, you know... (F74)

Yes. Because of the independence, the freedom, the last frontier. After everything you've seen ... always take it for granted what you enjoy because its there. And the challenge. ... If there was nobody else fishing, I'd still be fishing, if no fish, I'd still be out there. (F68)

A wife, talking about her husband,

... he'd always dreamed of going back (going back fishing) because by this time it was so much a part of his life ... I used to catch him out in the backyard, you know, when the boats were leaving, he'd be sitting out there looking down the river. (F81)

I've been doing quite a few jobs in my lifetime, but I would say there's nothing to beat fishing. (F59)

I think it gets in your blood when you're young, I think. At least talking to most fishermen, that's the way it is, after you're home a month or two you want to get back on the boat. (F57)

And conversely, the negative response may be the following.

... there's times I been thinking to quit fishing because I got my boat and home paid for and thinking more and more taking it a little easier, then of course next year, I'll be 55, and I don't have to drive it as hard as when I first started. (F58)

The following is an example of an ambivalent or partial response.

I've been thinking about that because I'm in that position right now. Yah, I could probably see other things. I'm not really sure. I know there must be other things out there. But I don't have the qualifications either, and I'm not prepared to spend a lot of time ... The only thing I basically know is fishing. (F72)

A third question, asked fishers, "If you had to do it over again, would you be a fisherman?" This question came at the end of the interviews and there were only ten cases responding. The responses to this question were quite variable, most answered in an ambivalent or partial manner (6 out of 10), 2 answered

positively, and two answered negatively. The following is an example of an ambivalent response.

I don't think so, no. I don't know what I would have done ... It's difficult to, when I'm out fishing, I quite often don't like it, or wish I was doing something else, but then when I'm away from it even a short while, I quite look forward to going back. (F41)

A positive response is the following.

Sure. I enjoy fishing, I look forward to my work. I know people who don't want to go to their 9 to 5 job, they're sick of it and looking forward to their holiday. But I'm not, I'm happy doing what I'm doing. If I had a son, I'd encourage him to fish, but he'll also need an education, because you can't make it solely in fishing now. (F11)

The second positive response was:

Yes. Or a brain surgeon, or a pimp. (F68)

A negative response was.

Oh, definitely not, if I was a young man starting out today. I would definitely not go into fishing, number one is the high amount of capital required if you had that kinda money, why you don't want to go into fishing, you'd go into something else, and maybe I could borrow that money to go in, well there's no way. No, if I was a young man today, I would not go into fishing. (F31)

A self-image is the way a person views himself. This self-image (perception) is not accidental and is based on a role which receives support and confirmation from others. When a self-image is centred on one's occupation, those who reinforce and confirm this image are workmates.

People who value their work and get satisfaction from it are likely to take their self-image from their occupation. Fishers, in particular successful fishers, are likely to take their self-image from their occupation. There are indicators, among fishers, that attest to high prestige. Successful fishers are among the highest paid of all British Columbian blue-collar workers. They enjoy recognition and autonomy in their work based on income, skills and ownership of equipment similar to professionals and craftsmen. As one fisherman (F64) succinctly put it, "... see, fishermen, just like anybody else, ah, doctors, lawyers, carpenters, no difference ... "

Fishers have an identity that associates them with their work, and a title which certifies membership. For example, one fisherman (F76) upon meeting strangers identified himself as, "I'm just a poor, but honest, fisherman". It gives those who bear this title a sense of belonging.

Fishers, are known not only by their Christian name but also by the name of their boat. In many cases, when the fisher's name is unknown, he/she will be referred to by his/her boat name. This practise is reinforced through the use of radio communications (e.g., VHF, or CB) on the fishing grounds. The great majority of inter-boat communications begin: "Jannelin calling Jansan, come in please. Over."

Peer Evaluations

Fishers, as with other craft-professionals believe that only their colleagues are competent to judge them. They are as interested in the activities and catch levels of other fishers as

of their own economic achievements and abilities. In an occupational community situation, peers not only evaluate the work skills of colleagues, but their habits and personality traits as well (Caplow, 1954: 127).

Fishers further believe that only they truly know what is going on in the industry. That all other assessments, in particular the management of the fishery by the federal Department of Fisheries and Oceans (DFO), are poorly informed and erroneous. Most fishers believe they know more about the habits and movement of fish than D.F.O. biologists. The comments of one fisherman illustrate this belief:

So they don't, ah, don't know. They do a lot of stupid bloody things - Fisheries - but, they, they have this thing in their heads that they don't want to listen to fishermen. They call some guy out in Saskatchewan and make him a Fisheries Officer, or whatever, in a matter of a year. And, then, they throw him out there, telling guys that have been in it fifteen bloody years what to do! That they are wrong! And, he doesn't even have a clue! That happens lots. Some of the regulations just don't make sense. Not to fishermen anyways. And, contrary to popular belief, most fishermen are conservation minded. (F50)

More important, fishers judge their personal worth on the ability to catch fish and maintain a particular life style. These evaluations are mutually reinforced in social settings and interactions. Persons in fishing communities are also prone to making value judgements about the fishing effort. In the words of a fisherman's wife:

You should be in Rupert when they have a closing, they are all about six hours out of town, and you can see the harbour and the boats are just coming in like mad, its a really beautiful sight I tell you. And you are trying

to figure out who's got the biggest load, and who hasn't - oh, he hasn't too much, he's too high, on, look at him, he's really loaded 'cause its way down. (F81)

Such assessments are specifically related to fishing such that it is not enough to make a good living, it is important to do better than the other guy. In other words, among fishers, it is not how much you make in a particular season, but that you make just as much, and preferably more than the fleet's average.

Convergence of Work and Nonwork Lives

Members of an occupational community tend to prefer friendships with people who do the same type of work. This means more than just being friendly with people at work. It implies spending time outside working hours with fellow workers. In the occupational community situation, workmates predominate as best friends. The importance of interpersonal relations among fishers corresponds with these patterns. One fisherman, when asked about friendships with other fishermen, commented:

Yes, very much so. Ah, yah, well I guess its, you have things in common with them. Ah, common trust, which is a very strong factor, um. I'll explain that further. I've always found that fishermen, the ones I've known anyways, are the most honest people I've ever known, and, ah, some of them are the most haywire, rough, and mean, but at least they are honest. And ah, I find that that's one of the most gratifying things that ah, that I can find in life, to deal with honest people. (F51)

Sharing of Problems and Experiences

One consistent feature of fishers is their love of adventure, and gambling. Many enjoy gambling at cards, and trips

to Reno, as a form of leisure activity. One fisherman, when asked if he had any other sources of income, replied:

... ah, most of my career is dependent on fishing, nothing is guaranteed, stock market, gambling, ... cards, and dice. ... That's why I enjoy fishing, you never know what you are going to get ... I've been to Las Vegas ... but ah, its fun to see, I wouldn't go down there to gamble ... its more fun gambling with people that you know. (F72)

Unlike the great majority of gamblers, fishers are different, they are more like what Tunstall (1969) has labelled, "professional gamblers". The gamble of the search for the fish, and the success in the big payoff is endemic to the fisher's way of life. In Tunstall's (1969: 200) study of British trawler fishermen he found:

Many men are attracted by the excitement, the curious psychological loneliness of gambling, and behind their tired poker faces they will scheme on into the night. But the trawler skipper is a professional gambler, who plays not just one night in the week, but ten days and nights in a row.

Other common leisure activities which correlate with their work are hunting, travelling and skiing. Among fishers one finds a love of adventure and the outdoors.

Communities do not arise spontaneously. Rather they are based on prior learning, acquisition of particular knowledge, and a set of values and beliefs shared among members. The same is true of occupational communities. In summary, this section has described the occupational community of Greater Vancouver commercial fishers with reference to a series of sensitizing concepts. This conceptual categorization includes: *perceived sense of community, self-image, peer evaluations, convergence of*

work and nonwork lives, and the sharing of problems and experiences. The following section will discuss entry and acceptance into this community through the process of occupational enculturation.

Work Culture

Ideally, occupational enculturation follows a progressive line of increasing skill and income through regular evaluations of worker performance. Evaluations are based on two criteria. One, is the explicit mastery of skills and techniques. The other is the adoption and display of a related set of implicit qualities. An apprenticeship usually involves the learning and mastery of skills and techniques. However, there are other tangible, although less apparent, processes involved. These processes involve the acquisition of the culture of a particular work milieu. This section will discuss the culture of fishers with reference to a conceptual categorization of the processes comprised of a series of sensitizing concepts. These include: *the acquisition of the particular tools, clothing, jargon, and joking behavior.* As in the previous section on occupational community, this discussion will describe each of these factors and relate them to fishers. Illustrative quotations from fishers will be provided as examples of the everyday lived relevance of the concept.

Tools

In the crafts, the tools of the trade are the most important accoutrement of the skilled craftsman. In fishing, the tools,

boats, and other gear, how they are used, when they are used, and how they are taken care of, are indicators of skill and expertise. The fishing gear is essential for carrying out the work, and also reflects something personal about the owner and operator. Much can be determined about a fisher by the maintenance and operation of their boat and other gear.

When a fisher arrives at the fishing grounds, they are immediately evaluated by other fishers. For example, when one fisherman changed from the gillnet gear to the purse seine gear, he took great pride in taking his much larger seine boat to gillnet openings. He laughed and commented, "You should have seen the reaction, I was the biggest boat there" (F45)³.

The boat and gear serve as accurate indicators of accomplishment. They are the visible signs of expertise. High quality and well maintained equipment reflects success and experience. Cleanliness, neatness, and sturdy equipment, as well as the use of modern technology reflect ability, experience and skill.

The display of the gear and boat indicates ability and experience. A fisher's boat, and the working of the fishing gear are the core of the identity as a fisher. This pervasiveness of the importance of the boat over the man is reinforced in radio

³ This element of personal pride which fishermen have for their boat at times borders on what Veblen (1934) has labelled 'conspicuous consumption'. For fishermen, while on the one hand their boat is their source of livelihood it is, on the other, also a source of social status. One fisherman on purchasing a new vessel invited me to have a look at it. It was very evident that this new vessel was to him something much more than a working boat.

communications but also is a means of identification on the fishing grounds. Boat names are clearly displayed in large script on either the stern or the bow of the vessel.

While fishing, the men are in constant surveillance of each other and a particular style of fishing comes to be identified with a particular boat. An important part of the price of a boat sold within the fleet is related to the boat's reputation. A fisherman who had just purchased a new boat remarked,

A woman built it. Her name was Marian, and when I bought the boat, I, she was really in love with her boat, and I promised her I'd never change the name ... She was a real character, liked to drink, take out men deckhands (laughs). She had a lot of fun. She just died last year. Even after I bought the boat, two to three weeks after I bought the boat, she'd phone me at night to see if I had pumped it out, was looking after it. (F72)

While some boats have a reputation for being "good boats", others have reputations for being "bad boats". Some suffer from "electrolysis" (i.e. the boat's hull carrying an electrical charge), others are merely "piss-pots". But regardless of "good" or "bad", all boats are attributed female qualities. I think that it is not uncommon for fishermen to love their boats, often more than they love their wives. One fisherman when discussing the possibility of his marriage breakup commented, "She can have the house and everything in it, all I want is my boat". (F76)

Apparel

The adoption of specific pieces of work apparel serve as implicit indicators of the occupational enculturation process. The rain gear, worn almost constantly, is a particular type and

brand. For example, I queried one fisherman on the utility of the "sou-westerns" which fishermen are shown wearing in advertisements and photographs. He commented, "only a fool would wear one of those, all they do is get your neck wet" (F67). Fishermen prefer the grey woollen long underwear which tend to be very itchy, but express tradition and masculinity. Also, only a particular brand of black rubber boots and gloves is preferred. The importance of costume among fishermen has also been noted by Tunstall (1969: 196):

The skipper has been a deckhand and in many ways he remains like one. He usually wears the same 'fearnaught' trousers, the same speckled-grey pullover, the coloured woollen scarf knotted around his neck. He uses the same fishing jargon has the same familiar obscene language.

Jargon

Acquiring and using the jargon of one's trade so that it is second nature is another aspect of occupational enculturation. Boats, fish, gear, coastlines, ocean and tidal conditions, and, of course the weather have particular nomenclature. Thus, trollers talk about "hootchies" (types of lures for fish), and gillnetters talk of "scotchmen" (red buoys which mark their nets), and seiners talk of "red-clouds" (what happens to the tie-up man when the beachline snaps). The use of jargon is generalized across the industry, is specific to each particular gear type, and identifies those who use it as "belonging". One fisherman, in a public critique of the industry, relies on his knowledge of jargon to establish the credibility of his claims. He states:

I am tired of hearing the spite and malice over the radio. The swivelnecks hate the ragpickers, the ragpickers hate the vacuum cleaners, and the vacuum cleaners don't care. As far as present conditions are concerned, a change in attitude may be a good solution. (The Vancouver Sun, September 10, 1982)

Not only is jargon specific to individual gear types but also with particular fishing grounds. These terms are unique to the fishing industry and are often unknown to other mariners. A fisherman confirmed this by saying:

There's this spot called the Sitka spot ... there was a Halibut meeting today of the Halibut Commission there, and we were talking about the Sitka spot and the Sitka spot is called the Sitka spot because a boat called the Sitka had it and fished it for ten years and nobody knew about it and (he) got boat load after boat load - seven or eight boat loads a year. And, eh, then other guys eventually found it and there was three or four guys, ten guys knew about it and eh. And now, 300 guys, 400 guys know about it. Its the best Halibut spot in B.C.. (F71)

Nautical maps which are rarely in view, are often carelessly stowed away and referred to only incidentally, or to quiet the obtuse questions of the uninitiated. Fishermen know their position through knowledge of the coastline, tides, weather and the passage of time. The deepwater, freezer-trollers and halibut fishers, are the most dependent on navigational maps and technological aids (e.g., the Loran satellite navigational system).

Landmarks along the coast come to hold specific references. For instance, most fishers, fishing off the west coast of Vancouver Island know about Hot Springs Cove, which is one of the few places up the coast where the water is warm enough to bathe in. Fishers have set up make-shift pools for bathing. Our boat

didn't stop at Hot Springs Cove because we were in a hurry to get to the fishing grounds ahead of everyone else.

Thus, becoming a fisher involves more than simply learning how to operate a fishing boat and gear and knowledge of fishing grounds. It involves a process of looking, talking and acting like a fisher.

Joking Behavior

Watson (1980: 42-46), suggests that joking behavior, or what Haas (1977) refers to as "binging", is an important component of occupational subcultures. In the occupational community of the Portland longshoreman, Pilcher (1972) found the use of profanities to be related to the work process and context. He argues, joking behavior and the use of profanities are clearly related to the job. Joking behavior, refers to the exchange of insults among group members in a well defined social structure.

According to Pilcher (1972), longshoremen use profanities and insults to express a solidarity, which taken out of context would elicit hostility. Joking behavior, and also profanity are taken to indicate cohesion among particular groups. This relationship is always primary rather than secondary, is rarely optional and most often mandatory among persons holding the requisite statuses. The use of humour to deflect work related tensions is illustrated in the comments of one skipper,

Well, its, its, it takes a bit, because nobody is perfect, and you get down in the fo'c'sle, you've five guys there, and one guy will never put his clothes away, he leaves everything in a pile down there, you know. And how in the hell is the way to get across to that guy, you see everybody else clean but the one guy. You put it in a five gallon pail and put it in the engine room. (laughs) Holy Christ, where's my pants, where this, I don't know, nobody knows. (laughs) So he looks around and he finds it, and he gets the drift. Nobody told him anything, pretty soon he cleans it up. (F73)

Profanity may serve to reinforce and reaffirm the 'rough and tough masculine image' fishermen project to one another and to outsiders. Blasphemy is primarily a device for relieving pent up tensions from work. Cursing releases hostilities from work.

However such profanities are context related. Over the radio phone, rarely is profanity accepted, and there are strict rules of communications. Secondly, obscenities are rarely uttered in the company of women. This context related, masculine dominated expression of profanities has been identified by Pilcher (1972) to be related to a series of contexts: the ingroup context, the workplace, and danger and the reduction of tension.

The function of joking behavior was to some degree recognized by Radcliffe-Brown (1952). Persons sharing a joking relationship whether it exists primarily between tribes or clans, or members of a culture, community, or occupational community clearly form a socially significant group. Joking behavior serves as a symbol of solidarity for all these groups.

Job Satisfaction

The existence of occupational communities has also been found to be related to workers' job satisfaction. The following discussion will describe the job satisfaction of Greater Vancouver commercial fishers with reference to a series of sensitizing concepts which have also been found to be associated with the existence of occupational communities (Applebaum, 1981: 91-100). As in the previous sections on occupational community and work culture I will discuss these concepts and then relate these to the everyday lived experience of fishers through the use of illustrative quotations. The factors are: *supervision, participation in decision making, integrated work groups, and prestige.*

Supervisors

Herzberg and associates (1959) compiled data in which workers were asked what made them satisfied with their job. Supervision was mentioned more frequently than security, job content, company and management, working conditions, and opportunity for advancement and wages. The only other more frequent response was the relationship with co-workers.

In the literature on fishers (Cohen, 1982; Andersen, 1979; Barth, 1966; Nemeč, 1972 etc.) one consistent finding is that work relations in the fishing industry, on board the fish boats, are most often characterized by egalitarian decision-making and that skippers authority is rarely exercised. In fact, it is most common that fishing crews are mutually interdependent. A fisherman explains,

Well, ah, put it this way, I need a good crew as much as the crew needs me. I mean, I can't work without a crew. (F76)

Participation in Decision Making

One of the basic assumptions of research on job satisfaction as this concept relates to occupational communities is that persons obtain satisfaction from influencing decisions and controlling their work environment. Evidence is the literature on fishing suggest that skippers enjoy this benefit. Skippers, are in control of their work environment and are continuously involved in decision making. They have responsibility for the decisions of where, when and how to catch fish. Andersen and Wadel (1972b: 153) also note the relevance of decision making in fishing:

Decisions in fishing are rarely taken on the basis of detailed, pre-determined, or programmed, information. Moreover, because fishing requires highly specific information which is constantly changing and only obtainable at the actual fishing grounds, and because of the necessity to make quick decisions on the basis of this information, fishing cannot be directed from ashore.

As one skipper explained when asked if he made all the fishing decisions,

Yes. Who am I going to ask? Oh, you go and you ask guys in town, certain areas where they caught the most fish. You know, skippers get together and compare notes and usually from there on you see what they caught last week and where the fish were. It's a little bit of work looking into that too ... and experience too.
(F73)

This illustrates the extent to which decision making is an important and ongoing component of fishing. Sometimes, however, these decisions can be overwhelming. In many situations skippers may not have enough knowledge to come to a decision.

In the competitive atmosphere of the offshore trawler fleet Tunstall (1969) found skippers to be driven men on constant alert for new information, and continuously evaluating their prospects for catching more fish. In the Pacific coast salmon fleet this is also present. In this fishery, skippers strive for maximum control of the work environment and even though they may downplay their authority, they are, ultimately responsible for the boat, crew and fishing strategy. The inherent tension in this work is the pressure to catch the largest amount of fish, to be a "highliner", while remaining on pleasant relations with the crew and other skippers.

The continuous search for fish, may sometimes push these men and women to a near breaking point. In these instances, the skipper is often left alone on the bridge pondering his fate. A description of the Hull trawler skippers by Tunstall (1969: 200) is equally applicable: the Pacific coast fisher is "like a Dostoyevskian monomaniac pursued by the things he himself pursues" - the ever evasive salmon.

This type of stress is alleviated by cooperation with other skippers and the delegation of authority to able crewmen. In cases, where a deckhand shares these responsibilities, his/her share of the catch is usually 20% to 25%.

Integrated Work Groups

A considerable body of research exists which asserts there is a strong relationship between greater job satisfaction and work based on integrated work groups. Herzberg and associates (1959: 132) argue integrated work groups are based on two elements: work techniques and technology, and social organization. A community social structure is constructed in harmony with the physical and technical conditions. It is often the case in the fishery that friendships are formed and grow between men who know each other from previous fishing seasons as members of the same crew, as members of the same fishing group, or among those who are fishing together for the first time.

Among the fishers interviewed and observed for this study, there appears to be little emphasis on delimiting spheres of competence; there is a diffuse rather than strict division of labor. One skipper commented:

I like to keep them doing other jobs because trolling can become extremely boring if all you're doing is pulling lines, day in and day out, all you're doing is pulling lines and dressing fish. So I like to show them first off, how to run the boat. So many skippers don't teach them, keep the deckhands in the dark. But I can see myself falling over board one day and the deckhand won't know how to run the boat. So if they wanted to turn it around and pick me up, they couldn't. So, you gotta teach them right away how to run it in case there is a situation where I can't. Also if we are in an area that's not producing fish, and we want to move to another area, ah, you got to run all night alone, and you can't stay awake day and night. So, they have to run the boat for awhile. Teach them how to run it. (F64)

This quotation illustrates the tension between skippers and crew for while the skipper is dependent on the crew he is also ultimately responsible for the boat and catching the fish. While he must engender egalitarian relations and cohesion to facilitate harmonious working relationships, he simultaneously must command and exercise authority. The problem of having a good crew revolves around the adequate resolution of this dilemma. It is often the case that skippers who fail at this are continually troubled by high turnover and inefficiency in their crew.

There is a social system of leadership among fishing groups based on the status position which the boat and skipper hold in the industry, as well as among the members of the crews, and between the crews of a particular fishing group. Informal leaders emerge through reputations based on skill, knowledge, and personality.

Channels of communication are established for fishing as well as nonfishing matters. Social interaction among fishing persons takes place on the fishing grounds while at work, and at

play. Within the total community of fishers at the fishing grounds, and in harbour, groups and cliques develop based on gear affiliations and prior friendships.

These groups are based on exploitative strategies but are expressed in amicable and informal friendship terms. However, if it is the case, that one member of the group, or a crewman, is not pulling their load, or contributing their share of work and information, they will slowly be ostracized.

For example, two skippers, who had fished together for four years came in conflict over their mutual contributions to the fishing effort. The one argued that the other completely relied on his information and risk taking, and that further, once given fishing information, he shared it with fishermen outside the group. These circumstances were unacceptable to the first fisherman, and he began to terminate his working alliance with the second fisherman. Among groups which collectively share information, deception is strictly proscribed. In another case, a fisherman reported that upon hearing of a friend's betrayal of group norms on information sharing that he discontinued exchanging information with that friend.

Prestige

Job satisfaction also comes from an individual's belief that his job carries prestige and is important to the community. According to Applebaum (1981), prestige in the construction trades is related to: leadership, earning a decent living and physical strength and stamina. It was observed that among the fishers, similar conditions prevail.

Fishers can point to the physical evidence of their work. In their day to day conversations, they talk with pride about the quality and the marketing of fish, and the big catches. The larger the catch, the better the catch, the bigger the pride. Fishers love to have fish on hand to give to friends and family onshore.

Fishers like to talk about work feats. I've listened to men talk about how long and hard they've worked, the big catches, the big money. Some fishers become famous for their ability to catch fish. A fisherman noted this in referring to his 76 year old father-in-law as the "viking of the fleet" (F66).

Part of the culture of fishing is the satisfaction of doing 'manly' work, winning out over the competition and the elements, showing tenacity in the face of adversity, and coming home with the big catch, regardless of the difficulties⁴. Fishing is often hard and disagreeable involving work in foul weather, soaked by rain or blistered by sun, rolling in the waves and listening to the drone of diesel engines, or tied-up at night in a storm or drifting by "night anchor" on the waves. Fishers' hands are often swollen and scarred, with shoulders and arms strengthened from the years of sometimes hard physical labour. For example, one fisherman showed me his sturdy but small hands and said, "I remember in the old days when we used to fish halibut in the winter, it was so cold, we used to piss on our hands to get them

⁴ Despite growing gender egalitarianism in many occupations this is not the case for owner-operators of commercial fishing vessels. In the Greater Vancouver area approximately 2% are females. However female deckhands, who are often wives, daughters or girlfriends, are more common. It is possible to estimate their proportion around 30%.

warm" (F78). The prestige associated with masculinity has also been noted by Andersen and Wadel (1972b: 144):

The stereotype behaviour of the fisherman (and sailor) is characterized by extreme masculinity display: physical strength, endurance, fearlessness, and stoicism are highly valued, and virility is a prominent conversational theme.

Fishers enjoy the challenge of difficult tasks and the satisfaction that comes from doing a difficult job well. Most fishers believe they work hard and contribute to society. They feel they produce something real and tangible, and can see the physical evidence of their accomplishments. This physical labor tells on their faces and bodies giving testimony to their sense of integrity.

Among the fishers observed, it is often the case that a successful Pacific coast fisher is one who takes pride in the knowledge that he is capable of earning a good living through the fruits of his own long and hard labour. A fisherman summed it up this way:

As you get a little older, you get a little more common sense, and you don't get so excited and you can figure it out pretty good. Like last year, I figured it right up to the hilt, damn near high boat for the whole coast. I think I was, money-wise. (F73)

He takes pride in his boat and equipment that he has earned through his labors, in his financial independence, and finds satisfaction in "putting in a good season".

Those who enjoy their own self-respect and that of others exercise leadership for the benefit of others. Accomplished fishers often take their younger peers under their wing, and show

them the tricks of the trade. The comments of a fisherman's wife provide a clue:

'Sam' is really good in helping a young skipper.
Giving them information on where to go and fish.
(F81)

These fishers are not concerned with the potential competition from others because they have "made it through the hard times and come out on top".

The opinions of older accomplished fishers are often sought by the neophytes. Fishing news and strategy are regular topics of conversation. The elders are more familiar with the coast and the wandering of the fish. Younger fishers will ask advice. Often, when an accomplished skipper "pulls up gear and steams away", others will follow in pursuit.

A fisher who knows the fishing exudes self-confidence and self-respect. They demonstrate their knowledge through catch levels which are considered better than average by fellow fishers. Thus, they are considered "good fishermen". The evaluation by other fishers, gives fishers their self-respect. It is not enough to catch a lot of fish, it is also important to catch more fish than your partner or associates.

Since knowledge and skill in fishing are acquired through experience, successful older fishers are treated with respect. This is true regardless of income level. For example, among a group of fisherman I noticed that the oldest fisherman, though not necessarily the richest fisherman, was given last word.

Most people in Canadian society associate earning a good living with respect. Respect among fishers depends on their

ability to be a "highliner" or at least "break even with the average". In discussions among fishers, no one admits to being "low boat", everyone is at least "the average", and many do better. In situations where one has to admit a "poor catch", then a whole host of extenuating circumstances are brought to bear on why this may be so⁵.

Physical strength and stamina play a large part in determining the self-respect of a fisher. It is associated with their ideas about maleness and masculinity. But it is also associated with the requirements of the job. Much of fishing requires hard physical labor under trying conditions. Fishers must develop the stamina to persevere through adverse conditions - arm weary handling of gear and fish, leg weary balancing against the shifting tides, and protection from extreme cold, chilling winds, or a hot and blistering sun. Persons who do this work are proud of their physical capabilities.

Uncertainty and Dissatisfaction

Poor seasons and escalating costs of fuel, gear and licences, and variability and falling landed values are major sources of worry and dissatisfaction among fishers. These factors, combined with increasing restrictions on fishing times (e.g., in 1984 the trolling season was all but cut in half),

⁵ One fisherman, who had experienced a series of hard years, explained his misfortunes just as eloquently as those who proclaim their good fortunes. One often finds extreme variation between fishermen on their level of satisfaction with their lot in life.

introduction of quota and area licences, are perennial sources of tension among fishers.

The "crisis" in the industry spurred on the establishment of a Royal Commission, headed by Dr. P. Pearse in 1982. One fisherman had this to say about the viability of the Commission:

Its a good thing. The industry needs an airing. But its nothing we don't know. Its - nothing very often comes out of these things. You know this is about the tenth one. And the problems are much the same. Rehashing much the same old problems. (F12)

Obviously, for this fisherman, the "crisis" is nothing new, but instead an ongoing fact of life.

While a full discussion would be too lengthy and take us beyond the topic of the current research, the problems investigated by the Commission, problems which are endemic to the industry (i.e., conflicts between DFO, the banks, the processors and the harvesters), are colourfully depicted by Morgan (1984: 12):

The west coast fishing industry is like a chess game with a dozen grand masters. There are no sides; if one major player wants to sidle up to another, he does it until it no longer suits him. If another major player sees an opening, he'll go for the kill without a moment's hesitation, without caring for strategy.

The "crisis" has grave consequences not only for the fishers, but also for the government and the banks. At the time of this research there were a number of proposals, in particular the assessment of royalties to finance a buy-back scheme to reduce the number of boats, attempting to alleviate the situation (Pearse, 1982). However, in conversation with fishers, although they show real concern over the issues, most believe that "40% of

the fleet catch 90% of the fish, so they're buying out those who don't catch the fish anyway". Consequently, as a source of dissatisfaction, the insecurity does not overshadow the other positive factors, at least among the privileged 40%.

Sense of Insecurity

One of the basic concerns of the majority of fishers is the stability of the fishery. Government regulation of work during the fishing season can interrupt a man's potential earning power. Some examples are: poor timing of openings in different and widely dispersed areas, inaccuracy in estimating the size of the returning salmon runs, or, lower fish prices than expected. In addition, there is the problem of weather. In the cold and rain a man can lose a substantial percentage of his income due to bad fishing conditions.

The pervasiveness of concern with the threat of poor fishing manifests itself all during the fishery, but is most intense immediately prior to a roe herring opening.

This is a time of extreme tension and anxiety. For one skipper I fished with the anxiety was so intense that during the two week period we waited on the fishing grounds for the roe herring season to open, he developed severe diarrhea and had great difficulty holding down food. These tensions were reduced by sports fishing, beachcombing, and high levels of alcohol consumption. The tension is similar in this fishery as in a high stakes poker game.

Fishers have a sense of their own self-reliance and independence which carries them through such times of crisis.

They know the insecurities they must face in their industry. Those who are self-confident about their skill and their ability know they will be "on the fish", if not this time, then next time. They know there will always be a next time, that fishing is cyclical.

Accidents, Danger and Death

Fishers also talk about the tough and dangerous nature of their work with pride. Dangerous work is often prestigious and those who perform it are viewed as special. Applebaum (1981) suggests, construction workers are perceived in this way, and Haas (1977) argues it is an important component of the occupational prestige which ironworkers attribute to their work. Fishing also, is often dangerous, involving accidents and sometimes death. This factor has been considered to be important in both the British offshore trawl fleet studied by Tunstall, and also by Whitaker (1974). He states,

every Newfoundlander is brought up with stories of the loss of ships at the ice, and of crewmen swept overboard, whilst the disappearance of fishing boats without trace or warning is still an annual occurrence. The harvest of the sea is gathered in with an exposure to risk altogether different from that of more land bound occupations.

Accidents, danger and death are also lurking nearby the fishers of the Pacific coast. One example from the press (Vancouver Sun, 8 July 1981) illustrates this point:

Dead Fisherman Named, Port Hardy, (CP) - A 22 year-old fisherman, killed Monday night when a beach line broke and struck him on the head, has been identified as ...

RCMP at Alert Bay said the fishing vessel, Island Safari, was moored to a beach near Robson Bight in Johnstone Strait while a seine net was being set.

Police say the line snapped and struck Allen.

He was flown to Port Hardy by helicopter but was dead on arrival.

According to Tunstall (1969) the British trawler fleet has one of, if not the highest incidence of accidents and death of any industry in Britain. The fatality rate among workers in Canada shows that occupationally related fatalities are highest among fishers and loggers (Guppy, 1987). Guppy argues that indeed, the fishing industry has the highest number of fatalities in the 1980 to 1982 period. Further he argues that during this period, "at least one-half of all fishing related deaths occurred on the west coast" (1987: 194). In the 1984 salmon season five persons' lives were lost due to fishing related accidents.

Upon questioning a fishermen as to the resulting fatalities the following explanation was offered:

Early that morning, all you had to do was look at the barometer, it fell like crazy, and you could feel a swell rolling into harbour, nobody but a fool would have gone out that day. And that is just exactly what happened, I heard that young guy on the radio phone calling to his partner to take-off. His partner said no, the weather was too bad. The other guy replied, 'well if you're too scared to go, you old bastard, stay, but I'm leaving'. (F76)

Such foolishness, is fortunately not common across the fleet. The wiser fishers know when to "take a harbour day".

Accidents and death are less common within the fishing fleet today, than in the past. Many fishers believe that competition on the grounds has increased the amount of attention they pay to their work, corresponding to a reduction in accidents. However, as Tunstall (1969) found in Britain, it is not uncommon for fishers to have been close to their own deaths as well as knowing a relative or friend who has lost their lives while fishing. As one fisherman stated with disarming frankness,

I've lost about 25 (friends) in the last five to six years, fishermen friends. (F73)

Many of the fishers I talked with had had a close scrape with death.

Applebaum (1981) and Cherry (1974) in discussing attitudes of construction craftsmen toward occupational dangers, have commented that it was important for a man in that kind of work not to show fear, especially to himself. As one fisherman put it:

Fear is one. Men don't express fear, and that's eh, I bet you that 50-90% of the bottom line of that anger that's being expressed. It's dangerous work, it's a dangerous living, dangerous lifestyle. And, eh, men don't say they are scared, or don't even tell themselves they are scared. (F71)

This attitude may sum up the outlook of all fishers. The need to mask fear does not mean that they are foolhardy and will work under any conditions. Rather, the awareness of danger underlines a good skipper's knowledge and judgements.

In fishing, the pervasiveness of danger, in fact, operates as an important mechanism of social integration. Fishers are alert to danger and aware that in times of distress it is often another fisher who will come to the rescue. For example, regarding a fishing accident in 1981, the Vancouver Sun (8 October, 1981) reports:

'I'll tell you, it really makes you love your better half a million times more', said Terry. 'I think God was with us and I thank God for their safe arrival'.

Her husband, 24-year-old Brian Farrington, said Wednesday a freak wave destroyed the wheelhouse of his vessel shortly before the crew abandoned ship on Monday.

In a radio-telephone interview from a fishboat that rescued him and his crew, Farrington told reporters the crew had no alternative but to abandon the two-year-old vessel after the wave hit.

The interdependence among the crew is also based on this awareness - in times of need one has only fellow crew and skipper to rely on.

On board a fishing boat, the exercise of good judgement of when, and how to do what, is of constant concern. Fishers view the disregard of the ever present danger of the omnipotent natural environment as inexcusable carelessness. This concern with death creates comradeship, and mutual understanding among the inner circle of fishermen. The dance with death is a source of identification and informs the creation of the unique meaning of being a fisherman.

For example, a woman fisher gave the following explanation:

What I've found is that you are living closer to an edge ... and its the only thing that I've ever done where I nearly killed myself over and over again, and come out of it, whoof, what am I doing this for (laughing). And, another thing, you're out there and you haven't had any sleep for about four days, you're working your ass off, and, you go around a corner, in the midst of a storm, you're exhausted, you're bitchie, and ah, I keep thinking I should learn how to type, it would be an alternative. And you can't pull the boat over to the side of the road and get out, you're stuck in it. So there's sort of a, um, a sort of, a mystical experience of yourself and reality (laughing) you can't escape from where you've put yourself, there's just no way of walking away from it and ah, when you come on shore, you know, and look at people working, and listen to people who are working together and well its time for your coffee break, it just, has no relevance. (F53)

This perception of danger increases workers' autonomy and control over the work process, and leads to an increase in the safety of workers.

Summary

In summary, this chapter has described the occupational community and work culture of Greater Vancouver commercial salmon and roe herring fishers. Topics included: occupational community, work culture, job satisfaction, uncertainty and dissatisfaction. This interpretation of the collected data suggests that Greater Vancouver fishers represent an occupational community which is reflected in a *perceived sense of community, an occupational based self-image, the reliance upon, and acceptance of peer group evaluation, the sharing of problems and experiences, and high levels of job satisfaction* which are

expressed in a vibrant work culture (i.e., acquisition of work related tools, apparel, jargon and joking behavior). The work culture of Greater Vancouver commercial fishers was further described with reference to their responses to and interpretation of danger and uncertainties. Each of these elements was based upon and discussed in reference to the fieldwork and interview data which was collected during 1981 and 1982.

The data presented tended to support the thesis that fishers who reside in the Greater Vancouver area, who fish for salmon and roe herring along the Pacific coast, who are owner-operators of fishing vessels, do indeed, comprise a culturally textured occupational community.

In keeping with this conclusion, a woman fisher had the following to say about her commitment to the industry:

I prefer fishing to other occupations, one hundred percent! I just enjoy it. Its something you get addicted to. I love it! Its just one of those things that's absolutely beautiful! When you are out there, its something beyond compare! (F39)

This chapter has shown the relevance of the qualitative analysis in the exploration of the conditions and organization of a specific work sphere to demonstrate the existence and creation of an occupational community and work culture. A general implication of this research is that the organization of a work milieu has the potential to create a distinct culture.

CHAPTER VI

SYNTHESIS: SOCIOLOGY OF FISHERIES WORK AND CULTURE

Over four centuries five theories have been advanced as to the origin of the name Canada. The one generally accepted is that it comes from an Indian word Canatha (Algonquin) or Kanata (Huron-Iroquois), meaning "a collection of houses" or "a village". Jacques Cartier is said to have taken this to be the name of the country.

Someone once wrote that from this derivation Canada may be considered a "Land of Homes". Just as appropriately the country could have been given a name signifying "Land of Fisheries", for such it has been since man has known it. (C. Lyons, Salmon: Our Heritage)

Work culture is grown in the fertile soil of the organization of work. This is the premise of the Craft-Professional thesis. The core proposition of this argument is that some industries and occupations exhibit particular technical and environmental constraints which in turn generate specific work organizations and develop unique cultures.

This dissertation has reviewed in Chapters Two and Three some of the research which advances this proposal. In sociology, three researchers dominate this discussion. Robert Blauner, Alvin Gouldner, and Seymour Lipset. Contributors of lesser renown in the discipline, have further demonstrated the fruitfulness of the approach (e.g. Applebaum, 1981; Riemer, 1979). Insights gleaned from the review of this literature resulted in a set of sensitizing concepts. These were adopted to explain the organization of fisheries work and to describe the concomitant culture of work in this industry.

The objective of this chapter is to clarify how the ethnographic materials collected and presented in this dissertation pertain to the Craft-Professional thesis. There are two elements to the argument: the physical/technical conditions and the social organization of work, and the occupational community and work culture. Each will be dealt with separately then combined in an interpretation.

Physical-Technical Conditions and Organization of Work

The first major "Craft-Professional study reviewed was Gouldner's (1954), Patterns of Industrial Democracy. He argued the physical and technical conditions of mining (i.e., hand tool technology and dangerous working conditions) were related to the social organization of mine work. This involved cohesive work groups and nonbureaucratic and nonhierarchical relations. For example, he (1954: 109) describes social organization of miners thus:

If a miner wished something to be done, he usually went directly to the man who could do it. After searching around and finding him, the miner would discuss the matter and get his consent. The miner might then go to his supervisor and get his permission, after telling him what had already been arranged. Similarly, Old Bull, the head of the entire mine, might tell a miner to go to the supply room and ask for something. The miner would go, but usually he would not mention that it was Old Bull who wanted the supplies. Nevertheless, these would be given to him without question.

The second major study is Lipset, Trow and Coleman's (1956), Union Democracy: The Internal Politics of the International Typographical Union. According to these researchers, the working conditions of printing stimulated the development of a printers'

occupational community. These conditions are: irregular hours and shifts, night work, long apprenticeship, and, occupational marginality.

In their summary of some of the determinants of the occupational community of printers the authors (1956: 139-140) state:

The marginal...status of printing seems to be one factor which has been unique to printing all through its history and has been of major importance in motivating printers to associate with each other,...and...the night work...tends to increase printers' associations with each other. It reduces printers opportunities to associate with nonprinters or to take part in neighbourhood activities and mass entertainment; early in a man's career, it habituates him to occupation-linked leisure activities and releases him from the pressure of regular family life.

The third leading study is Blauner's (1964), Alienation and Freedom: The Factory Worker and His Industry. This is an analysis of four types of work technologies: craft (i.e. printing), machine-tending, assembly-line, and, continuous process. He argued that workers in craft and automated industries experience the highest levels of worker freedom, control, participation in decision making, and, solidarity and group cohesion.

Together the conclusions are that the technical and physical conditions of craft-work give rise to particular work organizations. The technical and physical conditions involve: hand tool technology, dangerous working conditions, irregular hours and shifts, night work, long apprenticeship, and, occupational marginality. These conditions give rise to a social

organization of work which involves: worker freedom, control, participation in decision making, cohesive work groups, and, nonhierarchical and nonbureaucratic relations.

These conclusions, drawn from the research of Lipset et. al, Gouldner, and, Blauner, were buttressed by the findings of other researchers and then used as sensitizing concepts in organizing the review of the literature on work in the fisheries in Chapter Three. This literature was discussed in reference to the physical and technical conditions, social organization, and, the existence of a work culture among fishers.

It was found that in the fisheries the relevant technical and physical conditions are: lack of control over the resource (i.e., competition for a commonly held resource, and, the mobility of the resource), separation of work sphere from residence, marginality or isolation from the broader social context (i.e., fishing communities tend to be isolated in coastal areas), and exposure to risks and uncertainty. The significance of these constraints was highlighted in a comparative discussion of peasant level fishing and agriculture.

It was found that the material conditions associated with peasant fishing results in a "production determined" (Norr & Norr, 1977; Udy 1970) organization of work. The literature reviewed suggested that in these settings, the importance of workers increased relative to managers and/or capital in response to the requirements of interdependent work groups and worker skills. According to the findings of the Norrs' (1974; 1977, 1978), fishing work organizations, to a greater extent than those

in farming, are characteristically "nonbureaucratic" and "rationally administered".

In their investigation of modern ocean fishing, the Norrs' (1978) found further evidence for their claim that fishing work organizations are "production determined". They (1978: 169) found that work in the fisheries is constituted by,

recruitment for skill and compatibility, and emphasis on achievement and performance, specificity, lack of administrators, de-emphasis of formal authority distinctions, consultation across status levels, crew involvement in decision making, and absence of hierarchy.

A further review of fisheries research (e.g. Acheson, 1981; Andersen & Wadel, 1972a, Fricke, 1973; Marchak, et al, 1987; Smith, 1974; Zulaika, 1981) tended to confirm the Norrs' conclusions. This review examined the physical and technical constraints, and, the work organization in fishing across a range of western industrial societies. From this review it became obvious that fisheries work organizations tended to be patterned along particular lines. That work organizations in small scale inshore and mid-water (i.e., nearshore and midshore) fisheries were prone to nonbureaucratic and nonhierarchical relations. These relations were found in fisheries in Newfoundland, Great Britain, Norway, and the United States of America.

In the Newfoundland fisheries it was found that the physical and technical conditions, and, the organization of work tended to vary with the area fished. In general terms the review found that the predominant species was codfish, there are three traditional fishing areas (i.e., the inshore, mid-water, and

offshore), and, there are four dominant gear types (gillnets, traps, longlines and trawl). It was further found that, the size of crew varies with the fishing area and gear type.

In Newfoundland the inshore and mid-water (i.e., nearshore and midshore) fisheries are similar and quite distinct from the offshore. For the sake of brevity, the following will compare the differences between the inshore and offshore.

In the inshore and mid-water fisheries, the following relationships were uncovered. In the gillnet fishery crews range from one to four. In the trap fishery there are from four to seven. The length of the fishing trip varies from one day (as in the trap and gillnet fishery) to one week (as in the mid-longliner fishery) and the season is from June through to November on the north coasts and throughout the year on the southern coasts. Recruitment to crews is commonly based on either kinship (e.g. the male agnatic bond), the crowd, or other informal-affective relations. The division of labour among inshore fishing crews was found to have little role differentiation, and a three tier status hierarchy based on ownership or nonownership of boats and gear. It was also found that work groups were cohesive, egalitarian, and all members participated in decision making. For example, Stiles (1972: 39) in his study of a Newfoundland inshore fishing community argued:

There is only one 'skipper' and he is always an owner...Nevertheless, non-owners, particularly if they are young and 'interested', may be allowed to take over such critical functions as steering and control of the engine; and in these situations, the locus of authority is vague indeed.

Philbrook (1974: 93) has noted the informal-affective relations which develop among these crews, and, how these are conditioned by technical/physical conditions:

Many close, human associations, especially among men, occur within and because of the ecological setting. One thinks of the fishing crews, the hunting pair, the sealing partners as long time associates with nature as a silent partner, offering risks and bounties that are well known but occur unpredictably.

In contrast, in the offshore the work organization tends toward greater hierarchy and authoritarianism. These changes in the social relations of work varied with changes in the physical and technical conditions.

Offshore crews range from twelve to eighteen persons. The length of trip is ten days and the season is continuous throughout the year. Recruitment is relatively formal and impersonal. There is a greater specialization in the division of labour, and, this corresponds with a four tier hierarchy. It was also the case that greater authority was vested in the status of skipper, and work groups were less cohesive.

In the seal hunt and on the offshore trawlers, Whitaker (1974) argues that hierarchical relations are more marked than in the inshore fishery. He (1974: 39) states:

The sea also demands rigid discipline, and this is particularly in evidence in the hierarchical system of the boat crew. Here, respect for authority, a careful delegation of duties and a clear cut chain of responsibility obtain. Even in smaller vessels these elements are present, although they are, of course, even more marked in larger vessels.

However, here again, it must be noted that even the skipper on an offshore vessel is dependent upon a cohesive crew. It is this

interdependency between the skipper and crew which conditions work organizations toward limited hierarchy. This interrelationship defines fishers, both skipper and crewmembers as 'co-adventures'. Andersen (1972: 134) has correctly depicted this:

It behooves the skipper to create a working relationship and atmosphere wherein men act effectively without being told, and respond cooperatively and quickly under necessary commands...success...is based largely on the skipper's and crew's persistent to complex gear and operating details...It follows that trawler skippers are attentive to the matter of building a crew with expertise and compatibility.

Other literature reviewed was research on the fishery in Great Britain (i.e. Baks and Postel-Coster, 1977; Goodlad, 1972; Tunstal, 1969), Norway (i.e. Wadel, 1972), and the United States of America (i.e. Orbach, 1977). As in the review of research on Newfoundland, a consistent pattern emerged. Namely, the organization of work tended to vary with the physical and technical conditions. The British trawlers and their crews had similar characteristics to the Newfoundland trawlers. The Shetland gillnetters and crew organization were similar to those in Newfoundland. The only divergence from the Newfoundland model is the more common use of purse seiners in Scotland, Norway and San Diego (U.S.A).

On the seiners, the size of crew varies with the area fished and the species harvested. In San Diego, the crew ranges from fourteen to eighteen men, the species is tuna, the area is offshore. Conversely, in Norway and the Shetlands: the crew ranges from five to twelve men, the species harvested are herring

and whitefish, the area is mid-water, and offshore. The larger crew size, longer trip, and utilization of the offshore area makes seinenet fishing similar to trawling. However, the predominance of fisher ownership, informal recruitment, cohesive work groups and egalitarianism, results in greater similarity to inshore and mid-water gillnetting.

Wadel's (1972: 108) remarks clearly amplify this point. He states:

The most important aspects to note from the foregoing discussion are that while the competence of the skipper and net boss is a most crucial factor in purse-seine fishing, they need an alert and competent crew as well as their voluntary co-operation. This is probably true for most types of fishing, but successful purse-seine fishing appears to require the crew's cooperation to a greater extent than trawling, for example, where the work tasks are more routinized. This emphasis on voluntarism generates more egalitarian relations between crew and those in command.

In sum, the review of the literature on the fisheries tended to support the Craft-Professional proposition that the physical and technical conditions of work (e.g., exposure to risks and uncertainty, separation of workplace from residence, difficulty in maintaining clear-cut control of the resource, and the need for teamwork, skill and co-ordination) are related to the organization of work (e.g., recruitment for skill and compatibility, emphasis on achievement and performance, specificity, lack of administrators, de-emphasis on formal authority distinctions, crew participation in decision making and absence of hierarchy). The Canadian Pacific coast commercial fisheries and the fishers who reside in the Greater Vancouver

area were then described in Chapters Four and Five in relation to these conclusions.

The discussion on these fisheries was organized around the physical and technical conditions, and the social organization of work. In general terms, it found a similar pattern to that witnessed in Newfoundland, Norway, Great Britain and the United States of America.

The Canadian Pacific Fisheries

The Canadian Pacific fisheries exhibited the following patterns: salmon and roe herring are the predominant species, there one finds three fishing areas (i.e., the inshore, mid-water, and offshore), and three predominant gear types (i.e. gillnet, troll, and purse seine).

On the Pacific coast the inshore areas are the domain of the gillnetter and purse seiner. Although they also fish in the inshore, the mid-water and offshore regions are the primary fishing grounds of the troller. In the Canadian case, the two technologies exploiting the inshore fisheries have different work organizations. The gillnet is one of the oldest forms of harvesting on this coast. The purse seiner with power block and drum is a relatively recent technological innovation which is increasingly in use. The similarities and differences of both types will now be discussed.

Both seinenet and gillnet fisheries are subjected to the most regulation by the federal Department of Fisheries and Oceans. While the "season" lasts from June to October, the "trip", or actual fishing time is closely restricted (i.e., from

one hour to 3 days per week to two weeks). The larger boat and net size of the seiner requires a crew of from four to seven. Gillnetters function with a norm of one or two, and, a maximum of three. Both of these technologies are easily adapted from salmon to herring fishing. Recruitment to these crews is generally informal. The crews on the seiners are covered by a union agreement and there is some formal recruitment.

Marchak (1987: 231) has argued that unionization of seiner crews may be explained by the fact that these crews are "closer to the traditional conditions of supervised labour" than either the "independent" troller or the "vulnerable" gillnetter. This statement may be correct in the implication that the larger seine vessels require larger crews and that these workers are closer to wage labour than those on board the smaller gillnetters. However, the UFAWU has a dual role for fishers, it also negotiates fish prices to the advantage of the small boat owner/operators. But, more importantly, the explanation for the unionization of seine crews may lie elsewhere.

An alternative explanation may be found in the historical conditions surrounding the social organization of work on board these vessels. Looking at seiner skippers as a group I was struck in my research by the fact that many were once employees of processors operating company boats, or, were seiner deckhands (see also McMullan, 1987a). Further, Muszynski (1987: 270-275) reports that the Salmon Purse Seiner's Union was instrumental in the establishment of the United Fishermen's Federal Union (UFFU), that they in turn founded the United Fish Cannery and Reduction

Plant Workers' Federal Union, Local 89 (in 1941), and, together the UFFU and Local 89 formed the United Fishermen and Allied Workers Union (UFAWU) in 1945. To date (Warriner, 1987), and from the beginning, seiner crews were concentrated in urban areas and had direct links with the processors. These conditions facilitated their development of formal organizations to further their collective interests. Consequently, the requirement of union membership for seine crews has an early precedent which has gone unchallenged.

On the gillnetter there is limited hierarchy, but the skipper is always in ultimate control of the vessel, gear and fishing strategy. Although, as in the Newfoundland inshore, it is not uncommon in gillnet fishing for the skipper to solicit advice, information and assistance from his partner. In this sense, there is a large measure of egalitarianism among gillnet crews.

On the purse seiners there is evidence of greater hierarchy, and a more specialized division of labour. However, on these boats, the skipper is rarely, the "Dostoyevskian monomaniac", as Tunstall, (1969) depicts the British offshore trawler skipper. In fact, it is common for skippers of these boats to downplay their authority and attempt to promote cohesive and harmonious work groups. On these boats, recruitment is also primarily informal.

The interdependent and egalitarian nature of fishing crews on seiners has been noted by Pinkerton (1987: 77). She remarks:

From the perspective of the crew, the owner-skipper shares the risk with them through the share system. Moreover, our interviews showed that many seine crewmen do not perceive the owner-skipper as an exploiter or "boss" supervising their labour, but as a coordinator in a relatively egalitarian social system predicated on a mutual dependence upon one another's skills.

This aspect of egalitarianism and lack of bureaucratization on the inshore Pacific coast gillnetters and seiners is consistent with the findings of Acheson (1981: 278) who remarks:

Relationships among crew members on fishing boats are remarkably egalitarian, from Europe...and Latin America...to Asia...All fishing vessels have captains or skippers because the need to coordinate activities and make definite decisions is ever present, but in many crews, the captain's authority is rarely exercised.

The Canadian Pacific coast offshore commercial salmon fishery is the domain of the troller. Unlike other offshore fisheries, this is a relatively small vessel, with few crew members (e.g. one to three). There is limited hierarchy, little task specialization, and, much egalitarianism. The season is June to October, and there are few restrictions on actual fishing time. Recruitment is informal, relations are affective rather than instrumental.

What the comparison of the three gear types in the Canadian case demonstrates is that, it is not necessarily the area fished, but the technological constraints in concert with the physical conditions of fishing that give rise to specific work organizations.

Slightly larger crew size, slightly greater hierarchy and authoritarianism and more task specialization are associated with

the larger purse seine vessel. However, all exhibit egalitarianism, affective relations, and informal recruitment. In both, the inshore/mid-water and offshore/mid-water areas these fishers have retained ownership of the means of production.

In sum, for the Greater Vancouver members of the Pacific coast commercial salmon and roe herring fleet, recruitment is informal and particularistic. Social organization of work is nonbureaucratic, and egalitarian. Labour tasks are vaguely defined. These social relations of work are attributable to the physical and technical conditions (i.e., irregular hours, lack of control over the resource, unpredictable natural environment and resource, exposure to risks, separation of work from residence, and, social isolation).

Conflict and Competition

There also exists conflict and competition both among crews and across crews. This conflict is attributed to the common property (i.e., lack of ownership and control) problem where each is striving to attain their share of a limited good (i.e., fish).

The existence of conflict among fishers is commonly associated with what Marchak (1987a) has termed the 'tragedy of mismanagement' where fishers are caught in the squeeze between capital on the one hand and government regulations on the other. This is true for the east coast (e.g., Matthews, 1983; Sinclair, 1983) as well as the west coast (Marchak, 1984; Marchak, et al., 1987). In terms of the east coast, Matthews (1983: 195-196) argues that the workers in the fishery,

are not a homogeneous group with common interests, but comprise a variety of different groups and thousands of individual self-employed fishermen all in competition with one another for two scarce commodities: fish and the money to be gained by selling them.

Yet, while this description is not incorrect, it fails to capture fully the extent to which self-employed fishers share a occupational community and work culture. This emphasis on within group conflict is also apparent in the study of east coast fishers by Sinclair (1983) when he states that it is "clear that fishermen have become socially divided". Marchak (1984:124) has cautioned against drawing hasty conclusions regarding the similarities between the east and west coast fisheries. Unlike the east coast fishers, she argues on the west coast "the fundamental division ... is between those who think of themselves as labour and those who take on the self-image of owners". In terms of the observations reported in this research, the self-image as owner would appear to be compatible with the self image of those fishers who participated in this study. Therefore, although socially divided fishers they may be, it is also important to keep in mind they share experiences and a way of life which sets them apart from other social groups. Indeed, it may be these commonalities which may save their way of life from destruction. In a more recent publication, Marchak (1987c: 359) notes of the Pacific fishery:

Fishers, whether unionized or independent, seiners, gillnetters, or trollers, native or non-native, have tried to work out their common interests and resolve their internal conflicts. They have demonstrated remarkable good will toward one another and a serious commitment to solving the problems.

The competition among fishers for a mobile and commonly held resource introduces the bases for conflict and deception among fishers. However this very uncertainty gives rise to a simultaneous desire to reduce uncertainty and competition. One method of reducing this uncertainty is through the establishment of networks or groups which share information on fishing strategy and technological innovations. There is a delicate balance between deception and disclosure. Fishing groups, or "clusters" exist on the Pacific coast, in the salmon and roe herring fleet. This adaptation has been demonstrated in a great many fishing cultures. These arrangements, according to Acheson (1981: 286) reduce risk and uncertainty. He states:

Members of clusters--men who have the same set of feasible options--are constantly in contact with each other and constitute a reference group. Cluster members share a set of rules about the proper ways to fish, and members of these networks obtain two kinds of information from each other: short-run information on the location of species and marketing information; long-run information concerning technical and economic innovations. In both cases, fishermen are reacting to the problem of uncertainty simply by imitating each other--especially their more successful competitors.

These communication lines are less secret in fisheries that exploit migratory species (e.g. salmon) than in sedentary species (e.g. lobster). In the Pacific coast salmon and herring fishery these groups or "clusters" are extensive and fluid. There is a broad range of information exchange across the fleet and within particular groups. At the base, fishermen whether in clusters or not depend on each other to reduce risks and harvest the resource.

Occupational Community

It is this similarity among fishermen, whether it be similar psychological characteristics (Acheson, 1981), or simply that as Smith (1974) argues, that fishermen share more in common with each other than with their shore bound fellow nationals, which is at the base of the fishers' occupational community. According to Fricke (1973: 3) for seafarers:

It is the past practises which, as in other occupations, proved a focus for present methods of organization and a pattern of life for a member of the occupation. This pattern places the worker within the context of his workgroup; it determines his social status and forms of social activity, and his attitudes towards, and expectations of, society in general and his community in particular.

This section will investigate the question of how the 'occupational community' concept was applied to commercial fishing and how it was utilized in explaining and interpreting the work culture of Pacific coast commercial fishers.

The highliners of the fleet, whether gillnet, seine or troll, are integrated into a work culture and occupational community of fishermen. It is this community and culture that provides their livelihood and generates their self-identity as "fishermen". The following will discuss the concepts of occupational community and work culture and demonstrate how these features are exhibited among commercial fishermen who reside in the Greater Vancouver area and fish for salmon and roe herring along the northwest Pacific coast.

Work Culture

Of the three major Craft-Professional studies, it is Lipset and associates' (1956) Union Democracy, which most clearly spells out the relationship between technology, work organization and occupational community. The following is an explicit statement of their thesis (Lipset, et al., 1956: 141):

The patterns of ownership and technology, which define work relations and organization, are part of the modern workers environment, to which he can respond and adapt within a narrow range of possibilities, but which he cannot easily change or significantly affect. If we find a relationship between aspects of the formal organization of work and the behavior and attitudes of workers, we can generally assume that it is the organization or structural factors that determine--or help to determine--the behaviors and attitudes, rather than vice versa, for there is little a worker or even a union can do to change the way an industry is organized.

In terms of concepts, these researchers argue the technical and physical conditions of craftwork (i.e., printing) result in intrinsic benefits to workers. These are: occupational prestige and job satisfaction (i.e., integrated work groups and participation in decision making) and a self image which is derived from occupation. Their (1956: 107) hypotheses as to the determinants of an occupational community among printers are stated thus:

- A. Men who feel their occupation to have high prestige will be motivated to associate with fellow workers more than will men who feel their occupation to have low prestige.
- B. Printing has higher prestige for its members than most other manual occupations have for their members.

Therefore,

C. (Holding all else constant) printers will be motivated to associate with other printers more than most other manual workers will be motivated to associate with their fellow workers.

In the sociology of work there are a number of studies which have proposed these or similar notions. Some of the relevant studies reviewed earlier were: Kerr and Siegel, 1954; LeMasters, 1975; Becker and Carper, 1956; Gerstl, 1961; Goode, 1957; Salaman, 1980; and Watson, 1980. For example, William Goode (1957: 194) provides a clear definition of the determinants of occupational community among professions. He (1957: 194) states the professions are communities with these characteristics:

- (1) Its members are bound by a sense of identity.
- (2) Once in it, few leave, so that it is a terminal or continuing status for the most part.
- (3) Its members share values in common.
- (4) Its role definition vis-à-vis both members and non-members are agreed upon and are the same for all members.
- (5) Within the areas of commercial action there is a common language, which is understood only partially by outsiders.
- (6) The community has power over its members.
- (7) Its limits are reasonably clear, though they are not physical and geographical, but social.
- (8) Though it does not produce the next generation biologically, it does so socially...through its training processes it sends these recruits through an adult socialization process.

These studies were further buttressed with research drawn from other disciplines (i.e., anthropology of craft culture, folklore, and, the new labour history). For example, the relationship of occupational communities to work culture has been explicitly stated by Applebaum (1981: 100) in his study of construction craftsmen. He comments:

There is satisfaction from the feeling of belonging to a group in which one shares ideas and beliefs and where members engage in similar behavior. The notion of occupational community is based on the idea that men who work in the same trade craft, or occupation share experiences and a way of life so that as a group they have a culture.

In this literature, a series of components related to work culture and occupational community were discovered. It was found that occupational communities tend to be associated with the integration of work and nonwork lives, sharing of problems and experiences among workers, acceptance and tolerance of occupational peer group evaluations, and a strong occupational-self identity (e.g. Goode, 1957; Applebaum, 1981). Work cultures were found to be expressed in costume/clothing, language/jargon, and, joking behavior (e.g. Riemer, 1979; Pilcher, 1972; Laba, 1983; McCarl, 1978). Riemer's discussion provides a clear statement of the components of work culture. He (1979: 24) states:

An occupational culture provides a bond for members who belong to a particular occupation. This social bond is based upon tradition and members who belong understand that tradition and knowingly perpetuate it. An occupational culture includes a set of beliefs about the occupation, an accepted way in which the work should be done, and attitudes concerning how workers should behave, dress and communicate.

One further component is consistently cited as being related to work culture. This is the exposure of workers to risks and uncertainties which often involve hazards. Kerr and Siegel (1954: 191-192) argue that these working conditions influence and define the location of workers in isolated communities where all:

have grievances, but what is important is that all members of each of these groups have the same grievances: industrial hazards or severe depression unemployment or bad living conditions...or low wages or intermittent work...after they have been verbally shared, may be greater than they seem of the individual parts.

In an explicit statement of the impact of hazardous working conditions on work culture Fitzpatrick (1980: 134) states:

Each occupational setting is characterized by some form of distinctive occupational subculture. The specific content and form of the subculture depend upon the parameters of the interactive process, the conditions or problems requiring adjustment, and the larger culture context. Thus, if danger is a salient variable within the occupational setting, the participants of that setting should respond to the condition of danger through the development of subculture traits and create an 'occupational subculture of danger'.

Such subcultures of danger have been found to be associated with, among others, the following: miners (e.g. Gouldner, 1954), construction ironworkers (e.g. Haas, 1977), and fishermen (e.g. Tunstall, 1962). Haas (1977) has demonstrated how dangerous working conditions involved increased levels of group cohesion, worker control and work culture. He (1977: 165) states:

In dangerous occupations participants are described as engaging in a great deal of horse play, joking and banter, or as I refer to it--binging. This form of interaction supports worker efforts to maintain control of their work environment and to evolve rigorous sets of expectations about appropriate behavior and shared worker attributes. This suggests that the perception of danger leads to very similar processes and expectations in very disparate occupational groups.

The object of this study was to describe the fisheries by using the concepts derived from the Craft-Professional thesis.

After establishing the boundaries of the approach, the second step was to depict the cultural mosaic, the "webs of significance", of commercial fishers on the Pacific coast of Canada. To this end, I analyzed a series of intensive interviews conducted with fishers residing in the Greater Vancouver area. These were corroborated with fieldwork notes from the salmon and roe herring fisheries. These interviews and observations generated the qualitative materials which suggest the hypothesis that there exists a vibrant work culture among these workers as well¹.

In generating this hypothesis the data were organized around the Craft-Professional concepts. These included: Occupational Community (i.e., self-image, peer evaluations, convergence of work and nonwork lives, sharing problems and experiences), Work Culture (i.e., tools, clothing, jargon and joking behavior), Job Satisfaction (i.e., supervisors, participation in decision making, integrated work groups, and prestige) and Uncertainty and Dissatisfaction (i.e., accidents, danger and death).

The Culture of Fishers

The Craft-Professional researchers have advanced the thesis that the physical--technical conditions, work organization and culture are all interrelated elements. That together they combine into unique work cultures or occupational communities within modern political economies. The new labour historians

¹ Detailed discussion of the methodological approach and data are in a series of Appendices: Appendix A is the study design, Appendix B is the Interview Schedule, Appendix C is a statement on how rapport was established, Appendix D is Informant Codes.

have taken this argument one step further and argued that work cultures may explain the limits of worker's resistance to the imperatives of capital accumulation. The significance of culture to the new labour historians is illustrated in Kealey's (1981: 89) remarks:

The complexity and heterogeneity of the Canadian working class experience...has never, ...eliminated the class tensions that arise between the working-class's attempts to make capitalism less oppressive and capital's own needs. And this is precisely the utility of cultural analysis. Recognizing that the "degree of homogeneity and distinctiveness of class cultures is historically very variable", it directs our attention precisely to the terrain of analysis which is crucial in our examination of working-class history...Indeed it must explain the elements of working-class life that hinder the emergence of stronger resistance to capitalist hegemony.

The development of these cultures has been said to be more commonly associated with craftwork than with other forms of production.

Craftwork is comprised of specific physical and technical conditions which are seen to be favourable to the development of work culture. This culture is generated from within a particular organization of work.

In its barest elements, craftwork implies: ownership by workers of the means of production, the predominance of hand-tool technology, and, the lack of separation between conceptualization and execution of the task to be done. It is also often the case that craftwork involves long and irregular hours, marginality in the occupational world, long apprenticeship, and, solidarity and cohesion among work groups. Many craftworkers (e.g. ironworkers)

are also subjected to dangerous working conditions. Together these factors have been found to be associated with nonhierarchical and nonbureaucratic work organizations.

This study has classified fishers as craftworkers given that all of these conditions are present in the fishery. In the fishery these elements are further enhanced by two other factors: the lack of control over a 'common property' resource which is highly mobile and varies in availability, and, the separation of fishers from their home residence for relatively long periods. In terms of the organization of work among Pacific coast fishers, Guppy (1987: 191) has this to say:

The work involved in fishing varies from the intense to the monotonous. When seine openings occur, the crew and skipper must work diligently and cooperatively for the duration of the period. Likewise in trolling, when fish start biting, action can be hectic. Conversely, long periods of idleness and inactivity must be endured.

Beyond coping with these extremes in physical and emotional intensity, workers must also adapt to uncertainties surrounding the duration of the voyage, the amount of money they might earn, and the precise timing of intense work periods.

Pacific coast fishers are subjected not only to uncertainties and variabilities, but also to dangers. In a discussion on accidents and fatalities on the Pacific coast fisheries Guppy (1987) argues that in Canada, the fishery has the highest rate of fatalities. Further he argues that west coast fishing is more dangerous than Atlantic fishery. He (1987: 195) states,

while only about one-quarter of the fishing labour force works in the Pacific region, more than 50 percent of all fishing fatalities occur in the west.

This dissertation has argued, following from the Craft-Professional thesis, that these hazardous working conditions influence the organization of work on board west coast commercial fishing boats. This has been alluded to by Marchak (1987: 225) when she states:

Crew members are subject to the decisions of skippers with respect to the labour process, but, in practise, a large proportion of these decisions are made cooperatively, with the skipper having final responsibility. They are rarely directly supervised and once they have moved from the "novice" to the "experienced" category, they are normally treated as coworkers. Whether as skippers or crew, fishers respond not to clocks but to natural conditions of sunlight and weather. Much of their supervision is built into interdependent relations and the threat of danger if they are inattentive.

The argument that fisheries work is best conceptualized as craftwork is further reinforced by the finding that recent changes in the industry favour fisher ownership of a multipurpose gear which is adaptable to inshore, mid-water, and offshore. Warriner (1987) argues that purse seine vessels tend to be located in urban areas and account for the larger share of the catch reported in those areas. The increasing use of this gear type is reflected in the increase in the number of these vessels from 390 in 1960 to 552 in 1981 (Warriner, 1987: 340). This, the purse seine, currently represents the most advanced and efficient method of harvesting the resource. As a technology it

is a flexible technique which can fish both the inshore/mid-water and offshore areas.

Important aspects in the adoption of this gear are that it allows the following: maintenance of a crew of 4 to 7 and up to 18 depending on the fishery, limited hierarchy, a diffuse division of labour, fisher ownership, and egalitarian relations. It is these conditions of work which, the Craft-Professional thesis argues, are associated with integrated and cohesive work groups, participation in decision making, and occupational prestige. Together these factors result in high levels of job satisfaction (Hoppock, 1935). This is consistently reported as correlated with the existence of occupational communities (e.g. Lipset et al., 1956).

The occupational community of fishers on the west coast of Canada integrates all fishers regardless of gear type. The integration of west coast fishers into an occupational community and work culture is illustrated through the preponderance of family recruitment in the industry. Guppy (1987: 175) argues:

Fully three-quarters of our respondents reported that fishing was a "central pursuit" of their parents or grand parents...Of those in the industry whom we interviewed, over two-thirds of fishers said they had at least one family member currently active in the industry. In few other lines of work in Canada could such a pattern be anticipated.

In the group of fishers interviewed for this study it was also the case that upwards of 65% had family members who were current, or had previously been, fishers. This was common for all fishers regardless of gear type. A fisherman's remarks illustrate this pattern:

I started with my dad - after school and summer holidays. Things like that ... We lived in ... In fact we still keep the boats tied-up in front of ... there ... We only had one boy. But, ah, he's always fished. Ever since he was about 12 or 13 ... and then, he worked for Canadian fish for 7 years when he was going to school, he went to university for a year ... and then he's been fishing on his own. Got his own boat, in fact we got a company. We are incorporated as a company.
(F75)

Such a consistent recruitment pattern is surely related to the maintenance of an occupational community. Although, this community is not without internal conflicts, one thing is certain, these workers have more in common with each other than with, say, government bureaucrats (i.e., Fisheries and Oceans personnel) or the commuter inching along in a endless stream of automobiles.

The job satisfaction and occupational community of fishers is reinforced, and acquired through work culture. Together these represent the work culture of Greater Vancouver commercial fishers.

Fisheries work has been found to be "production determined" in peasant societies and remains so in modern industrial societies. It is possible that this is the most efficient form of production in this industry. Whether the purse seine has been adopted for its capital/technical benefits, or conversely, for its worker/social advantages poses a unidirectional question which can not be answered. To select one element as causal is to prematurely reduce the complexity of social life. Such an attempt would involve, as Giddens (1976) suggests of the logical positivists, not only waiting at the wrong platform with a ticket

going the opposite direction, but, waiting for a train which does not exist! For Canadian commercial fishers, who fish the Northeastern Pacific coast, the fishing is both a source of livelihood and a way of life!

It is not possible, given the exploratory design of this research, to confirm or reject the labour history argument that work cultures may be causal factors in the production process. But it is clear, in this industry many components of craftsmanship and work culture are empirically present. Further, these elements have shown a strong resistance to modification.

One further directive, gleaned from the new labour history, is that the persons who labour, do so within a political economy. They, following E.P. Thompson, insist on situating their analyses within the larger social and political context. In this respect the new labour historians attempt to bridge the gap between political economy and history. As Palmer (1976: 69) argues:

Historians and political economists, of course both generalize, although from different premises. While the political economist will necessarily focus upon long-term historical processes and impersonal developments, the historian is likely to gravitate towards human agents and limited chronological periods. Both perspectives are essential...Both perspectives, moreover, stand to be enriched by one another.

The following chapter will discuss the political economy argument on the labour process, how this thesis has been applied to the Canadian fisheries and the contribution of this study to that literature.

CHAPTER VII

THE POLITICAL AND ECONOMIC CONTEXT OF
WORK AND THE BRITISH COLUMBIA FISHERIES

Today the routines of everyday life challenge religion. Many old gods ascend from their graves; they are disenchanted and hence take the form of impersonal forces. They strive to gain power over our lives and again they resume their eternal struggle with one another. What is hard for modern man, and especially for the younger generation, is to measure up to workaday existence. (M. Weber, "Science as a Vocation")

In the 1960s and 1970s two published works heralded the reawakening of sociological interest in Marxist political economy. These are Baran and Sweezy's (1964) Monopoly Capital, and Braverman's (1974) Labour and Monopoly Capital: The Degradation of Labour in the Twentieth Century. Braverman's thesis is derivative of Baran and Sweezy's analysis of capitalism in the stage of monopoly. However, his specific concern is with the labour process. Given that his work was the first clear statement of the Marxist political economy position on the labour process in contemporary North America this chapter begins with a detailed presentation of his argument. A critique of the idealism and inadequacies of his approach is taken up in Chapter Eight of this study¹. Following this are discussions on the Canadian labour process from the Marxist political economy perspective. There is a discussion on the persistence of the petite bourgeoisie in Canada, in fishing, and, the political economy of British Columbia's fisheries.

¹ At the outset, it is necessary to point out that although the thesis Braverman develops is pivotal to Neo-Marxian theory on the labour process, it is an argument which can be subjected to some serious criticisms. Some of these are taken-up in Chapter VIII of this study.

The objective of the following discussion is to describe the place of the Pacific coast commercial fishery within a broader politically and economically defined context. The focus is on the trends in the labour process in general (i.e., Braverman, 1974), for the petite bourgeoisie in particular (i.e., Cuneo, 1984) and with reference to the problem of "uncommon property" for the Pacific coast fishery. It will be argued that although fishers have managed to retain control of their labour process that control is tenuous.

Labour and Monopoly Capital

During the 1970s researchers in the sociology of work and occupations began to turn attention toward explanations which were being developed in the revival of the Canadian political economy tradition. Researchers in this tradition would include: Clement, 1980, 1983, 1984; Cuneo, 1980, 1982, 1984; Marchak, 1979a². The publication of Braverman's Labour and Monopoly Capital (LMC) in 1974 marks the beginning of this shift in sociological interest on the labour process. Paul Sweezy's (1974: xii) remarks in the "Introduction" to LMC, illustrate the tone of the reception the book expected:

I hasten to add, and here again I am sure Harry Braverman would be the first to agree, that in important respects the function of this work is to pose rather than answer questions, to open (or re-open) lines of enquiry which have been neglected and which cry out for research and elaboration.

² For an excellent overview of the beginnings and major actors in the Canadian Political Economy tradition see Marchak, 1985.

The general process of the degradation of labour through progressive deskilling whereby work becomes increasingly meaningless, routinized and mechanized is the central theme of Braverman's (1974) study. At the time of publication the book was largely accepted as bringing fresh insight into what had come to be a neglected issue. The following will discuss the main themes of LMC. Braverman links the organization of work to class analysis³ and argues that under capitalist relations of production the working class has, and will become, increasingly homogeneous.

Braverman's view of the progressive deskilling of labour leads him to argue that the tasks of workers under capitalist relations will become simplified. This simplification of work leads to the destruction of differentiation among the working classes. This homogenization is viewed as a "general law of the capitalist division of labour"⁴. This proposition is germane to Braverman's (1974: 82-83) analysis and is worth quoting at length:

Every step in the labour process is divorced, so far as possible, from special knowledge and training and reduced to simple labour. Meanwhile, the relatively few persons for whom special knowledge and training are reserved are freed so far as possible from the obligations of simple labour. In this way, a structure is

³ 'Class analysis' refers to the distinction between ownership and non-ownership of the means of production. This view is characteristic of the analysis of those authors writing in the Canadian political economy tradition. For excellent examples see: Cuneo (1983), Clement (1983), and Rinehart (1975).

⁴ Please note that labour will be consistently spelt in the British fashion as 'labour' rather than in the American fashion as labor. This convention will be adopted in all circumstances to maintain consistency.

given to all labour processes that at its extremes polarizes those whose time is infinitely valuable and those whose time is worth almost nothing. This might be called the general law of the capitalist division of labour. It is not the sole force acting upon the organization of work, but it is certainly the most powerful and general. Its results, more or less advanced in every industry and occupation, give massive testimony to its validity. It shapes not only work but populations as well, because over the long run it creates that mass of simple labour which is the primary feature of populations in developed capitalist countries.

Braverman argues that it is this simplification of the work process which leads to the degradation of work. His ensuing analysis contrasts the two extremes of mass production work against the implicit ideal of craftsmanship⁵. The idealization of craft workers is the source of Braverman's critique of the capitalist organization of the labour process. Accordingly Braverman (1974: 6) states:

I had the opportunity of seeing first hand, during those years, not only the transformation of industrial process but the manner in which these processes are reorganized; how the worker is systematically robbed of craft heritage, is given little or nothing to take its place. Like all craftsman, even the most inarticulate, I always resented this, and as I reread these pages, I find in them a sense not only of social outrage, which was intended, but also a personal affront.

⁵ This idealization of the craftsman is discussed in Chapter II of the present study. It is argued that this ideal lies at the base of most sociological discussions on the labour process. The relevance of this ideal is explained in C. Wright Mills' White Collar (1953).

According to Braverman, the organization of work is based on two factors. The first factor of social transformation, which is essential to the structure of capitalism, is the drive for the accumulation of capital. Capital accumulation, according to Braverman, determines the transformation and degradation of labour under capitalist social relations. He (1974: 53) describes the accumulation of capital thus:

The worker enters into the employment agreement because social conditions leave him or her no other way to gain a livelihood. The employer, on the other hand, is the possessor of a unit of capital which he is endeavouring to enlarge, and in order to do so he converts part of it into wages. Thus is set in motion the labour process, which, while it is in general a process for creating useful values, has also become specifically a process for the expansion of capital, the creation of profit. From this point on, it becomes foolhardy to view the labour process purely from a technical standpoint, as a mere mode of labour. It has become in addition a process of accumulation of capital ... In everything that follows, therefore, we shall be considering the manner in which the labour process is dominated and shaped by the accumulation of capital.

The second factor of his analysis is the integration of the theory of capital accumulation with a general theory of development within the totality of monopolistic capital relations. Braverman's analysis of the structure of work organization within particular industries is then placed within the wider context of monopoly capitalism as developed by Baran and Sweezy (1964)⁶. Braverman (1974: 256) argues:

⁶ For an excellent critique of Baran and Sweezy (1964) see Cleaver (1979).

It is now necessary to focus not on the occupational shifts within these traditional industries but rather on the industrial shifts, the movements that change the entire social division of labour. In doing this we are following the course of capital, and the paths along which it has drawn labour. And for this we must attempt to sketch some of the broad social forces at work, and the social changes which are themselves nothing but the results of the rapid accumulation of capital in the monopoly era, as well as the conditions of further accumulation.

These forces are the modern corporation, the universal market (e.g., the totality of individual, family and social needs subject to the market) and the modern state.

According to Braverman, the outcome of these processes is the degradation of labour through the process of deskilling. He argues that there has been a general and progressive deskilling of jobs in the twentieth century. This involves a long term trend in which jobs become mechanized, routinized, and increasingly devoid of intrinsic content. These conditions are said to prevail for the majority of workers including clerical workers, service and retail trade occupations, the traditional working class, as well as the "middle layers" of employment. He (1974: 340-341) argues that:

As an important instance of this, we may note the changes in the work of the bank teller, once an important functionary upon whose honesty, judgement, and personality much of the public operations and relations of the bank used to depend. Attached to mechanical and electronic equipment, these employees have been transformed into checkout clerks at the lowest rates in the mass labour market, their activities prescribed, checked, and controlled in such a way that they have become so many interchangeable parts.

The basis of his argument is that work under capitalist conditions of production is based upon the realization of profits, and not the satisfaction of human needs. Following from these antagonistic relations in the work place the need arises to control workers.

One early, turn of the century, method of management control of workers is the theory of "Scientific Management" as developed by Fredrick Winslow Taylor. For example, it is argued (CSE, 1980: 11):

Taylorism, as it has become known involves systematically studying a job, no matter how complex, in order to identify each type of task that must be performed. Once management has appropriated complete knowledge of a job, by documenting every possible variation that can occur, it is in a position to take command.

This theory also provides the basis of Braverman's account. According to Wood (1982: 13), "The importance of Taylorism to both Braverman's theory and his perception of the 20th century lies in the fact that Taylor was the first management theorist to recognize the vital importance of control".

According to Braverman, Scientific Management is the method by which capital comes to dominate labour at the point of production. It is through the tools of Taylorism that the increasingly complex problem of the organization of labour comes under control. The discussion of Taylor is a core issue in Braverman's narrative. His analysis relies on the application and acceptance of Taylor's system by management. For Braverman, Taylorism is "nothing less than the explicit verbalization of the capitalist mode of production" (1974: 86).

Scientific Management is considered to be the pivot of the social relations of production. These relations, dominated and controlled by capital accumulation^x, are generated solely by management's need to control labour and not by the development of technology. Braverman argues that the notion of control is ^{- technology doesn't} independent of the level of technology. He (1974: 85) argues: ^{at least}

It is important to grasp this point, because it flows from the universal application of Taylorism to work in its various forms and stages of development, regardless of the nature of the technology employed.

The outcome of Taylorism is the removal of worker control from the industrial process. This destruction of worker autonomy in the labour process is viewed as a coercive force. Following from these relations the need arises to emotionally and psychologically adapt workers to labour and to increase motivation. These objectives were attained through what has come to be termed the Human Relations approach (Lowe, 1983).

According to Braverman's (1974: 87) account:

Taylorism dominates the world of production; the practitioners of the "human relations" and "industrial psychology" are the maintenance crew for the human machinery.

The first key factor in Taylorism which Braverman singles out is the study of work by those who manage it rather than those who ultimately perform it. It is concerned solely with the control of labour under capital relations. This control is deemed necessary to alleviate the problems incurred due to the structural alienation of workers.

The second key factor is a particular type of control. While Braverman recognizes that prior to Taylor certain forms of

management control existed, he argues that with Taylor the concept of control encompassed the actual process of work. He (1974: 90) argues:

Taylor raised the concept of control to an entirely new place when he asserted as an absolute necessity for adequate management the dictation to the worker of the precise manner in which work is to be performed.

In other words, management now began to assume direct control over the activity of labour. This was achieved by eliminating from workers' discretion the pace and organization of work. Scientific Management is (Braverman, 1974: 107),

the pivot upon which all modern management turns: the control over work through the control over the decisions that are made in the course of work.

It is this form of control which is at the heart of Braverman's deskilling thesis. Accordingly, this separation between execution and conception is aimed primarily at the destruction of traditional craft skill and the dissolution of the basis of worker control and resistance. Craftsmen who are owners of their means of production have control over the process of their production and are the incumbents of craft skills and knowledge. With deskilling this autonomy and knowledge is removed from the control of the producer. For Braverman (1974: 109), the craftsmen were,

from the earliest times to the Industrial Revolution the craft or skilled trade was the basic unit, the elementary cell of the labour process. In each craft, the worker was presumed to be the master of the body of traditional knowledge, and methods and procedures were left to his or her discretion. In each such worker reposed the accumulated knowledge of materials and processes by which production was accomplished in the craft.

It is this separation of the conceptualization and planning from the execution of the task to be done which Braverman argues is a distinctive feature of Taylor's scheme. This divestment of control is an attack on the holism embedded in traditional crafts. This process of deskilling is then taken to be the premise of the general degradation of labour.

The degradation of labour follows from the three principles of Taylor's Scientific Management. The first principle is that "dissociation of the labour process from the skills of workers" (Braverman, 1974: 113). The second is the principle of the "separation of conception from execution" (Braverman, 1974: 114). This second principle has two important implications. First, the control of execution is concentrated in the hands of management and divorced from the worker. Second, the purpose of this "science" was to "cheapen the worker by decreasing his training and enlarging his output" (Braverman, 1974: 118)⁷. The

⁷ The substitution of simple for complex labour cheapens the cost of labour in the productive process as specified by the Babbage Principle. The simplification of labour "... means that the labour power capable of performing the process may be purchased more cheaply as disassociated elements than as a capacity integrated in a single worker" (Braverman, 1974: 81). This is what is defined as the Babbage Principle.

final principle of Taylor's scheme is the "use of this monopoly over knowledge to control each step of the labour process and its mode of execution" (Braverman, 1974: 119).

Deskilling in particular, and the degradation of labour in general, are therefore seen as derived from management's adoption and implementation of Taylor's principles of Scientific Management. Taylorism is thus viewed as the explicit verbalization of the capitalist process of production under conditions of monopoly. According to Braverman (1974: 121), the role of modern management is,

to ensure that as craft declined, the worker would sink to the level of general and undifferentiated labour power, adaptable to a large range of simple tasks, while science grew, it would be concentrated in the hands of management.

Deskilling according to the general argument undermines the development of worker based centres of knowledge which are the major source of power held by workers in opposition to management. With the deskilling of labour, workers become fragmented and following the Babbage Principle⁸, labour becomes cheaper. Braverman interprets the process in this fashion, "... in a society based upon the purchase and sale of labour power, dividing the craft cheapens its individual parts" (1974: 80-81).

⁸ The Babbage Principle refers to the process whereby the tasks of the labour process are broken down into simplified parts such that each worker is responsible for a specific detail. The labour of individual workers may then be purchased at a reduction of the cost of a single worker who performs a series of integrated tasks. In other words, 'dividing the task cheapens the labour'.

The impact of deskilling is the degradation of labour. It is this degradation which Braverman finds particularly abominable and dehumanizing. This ethical position is rooted in Braverman's conception of the labour process under capitalist relations of production. This position is succinctly stated (1974: 113) thus:

In the human, as we have seen the essential feature that makes for a labour capacity superior to that of the animal is the combination of execution with a conception of the thing to be done. But as human labour becomes a social rather than an individual phenomenon, it is possible - unlike in the instinct, is inseparable from action - to divorce conception from execution. This dehumanization of the labour process, in which workers are reduced almost to the level of labour in its animal form, while purposeless and unthinkable in the case of self-organized and self-motivated social labour of a community of producers, becomes crucial for the management of purchased labour.

Elger (1982: 26) argues that the degradation of craft work is the most important theme of Braverman's Labour and Monopoly Capital (1974). This process degrades craft work into common detailed labour as the labour process is "rendered independent of craft, tradition and the workers' knowledge" (Braverman, 1974: 113). The degradation of craft traditions is seen to be the major contributing factor of the subordination of labour to the imperatives of capital accumulation. One indicator of the degradation of craft work is the decline in numbers of the petite ~~X~~ bourgeoisie. The following will review the persistence of this class in Canada.

The Persistence of the Petite Bourgeoisie

The purpose of this section is to examine the current evidence and theoretical arguments on the validity of the often accepted notion that small business and self-employed workers have declined in number and are rapidly becoming extinct. It will demonstrate how in some sectors, notably fishing, that the petite bourgeoisie has persisted if not increased. This section relies on Carl Cuneo's (1984) recent review of the literature and in particular his critique of Leo Johnson (1972).

The view that the petite bourgeoisie is in decline is consistent with the general trends specified in Braverman's analysis. To reiterate briefly, this argument is largely derived from a specific interpretation of the writings of Karl Marx and Friedrich Engels. One example (Marx, 1967: 762) of this position is:

Self-earned private property that is based, so to say, on the fusing together of the isolated, independent labouring individual with the conditions of his labour, is supplanted by capitalist private property, which rests on exploitation of the nominally free labour of others, i.e., on wage-labour.

Braverman's analysis rests upon a similar argument to the one above. With regards to the petite bourgeoisie, this view forms the premise of much of both contemporary Marxist and non-Marxist arguments on class formations in contemporary society. The following quote (Marx & Engels, 1976: 491-2) further illustrates this position:

The lower strata of the middle class - the small tradespeople, shopkeepers, and retired tradesmen generally, the handicraftsmen and peasants - all these sink gradually into the proletariat, partly because their diminutive capital does not suffice for the scale on which modern industry is carried on, and is swamped in the competition with large capitalists, partly because their specialized skill is rendered worthless by new methods of production.

Analysis of the Canadian class formation has, up until recently, tended to confirm this proposition. The initial research into this issue was conducted by Leo Johnson (1972: 151) who, while presenting a well organized and thoughtful analysis, concludes that the "whole petite bourgeoisie is reaching the last stages of destruction". This generalization has been served up to a whole generation of Canadian sociologists (e.g., Grabb, 1982; Hunter, 1981; Ogmundson, 1983). Recently, however, chinks in the notion of a steamroller of increasing capitalization have become apparent (e.g., Cuneo, 1984; Guppy, 1986; Marchak, 1984). This section of this chapter will evaluate the hypothesis on the destruction of the petite bourgeoisie in Canada, and, the persistence of this class in fishing industries in general and the Canadian Pacific coast salmon fishery in particular.

Cuneo (1984) examines this problem empirically and draws on Canadian census and monthly labour force survey data. He divides the petite bourgeoisie into three analytical categories: the 'traditional' petite bourgeoisie, the 'pure' petite bourgeoisie, and the 'diluted' petite bourgeoisie. He (Cuneo, 1984: 272) defines the traditional petite bourgeoisie as,

those who own and control the means of production to which they contribute their own labour with little or no assistance from paid labour.

This definition of the 'traditional' petite bourgeoisie is general. It refers to the class as a whole. For analysis Cuneo found it necessary to divide this class into two overlapping categories: the 'pure' petite bourgeoisie and the 'diluted' petite bourgeoisie. According to Cuneo (1984:272) the pure petite bourgeoisie is,

the own account worker consisting of those carrying on a trade, business or profession without the assistance of paid employees.

On the other hand, Cuneo (1984:272) defines the diluted petite bourgeoisie as,

those owning and operating their own means of production while employing either no or some paid labour.

In sum, Cuneo divides the 'traditional' petite bourgeoisie into two analytical categories: the 'pure' petite bourgeoisie and the 'diluted' petite bourgeoisie. These definitions reflect his attempt to distinguish between small business and the self-employed or "own account worker". The diluted petite bourgeoisie refers to those who periodically employ some labour while predominantly employing no labour. In contrast, the pure petite bourgeoisie includes only those who work independent of paid employees. For example, a fisherman who on occasion or consistently employs two deckhands would be considered an example of a member of the diluted bourgeoisie, while one who consistently works alone would exemplify the pure form of this class.

These distinctions are imprecise and are inherent in the theory which tends to ignore the non-craft small business sectors in favour of large business and wage-labour.

His analysis isolates the following trends. First, the petite bourgeoisie, in either the pure or diluted form, is most numerous in the agricultural labour force between 1931 and 1951. Second, that this class has the lowest numerical strength in the nonagricultural labour force between 1951 and 1971. In sum, Cuneo (1984: 274) argues that,

the petite bourgeoisie is much larger in agriculture than in most other sectors. Depending on the year, the pure and diluted petite bourgeoisie in agriculture vary from 3 to 17 times the size of their counterparts outside agriculture.

The persistence in the agricultural sector is further examined with reference to region and size of farm. The strength of the petite bourgeoisie is greatest in the western provinces of Manitoba, Saskatchewan and Alberta. This persistence is further enhanced when the breakdown of size of farm is taken into account. Cuneo argues that although there has been a trend toward increasing acreage per farm, the 1961 to 1981 period saw a reversal of this pattern. During this period the "individual or private family farms made up a constant 92.0% of all farms" (Cuneo, 1984: 275). He suggests that the individual farmer has managed to hold on because of three factors: the increase of part-owner-part-tenant statuses; the increase in off-farm wage work; and, the slow development of a farm wage-labour force.

Cuneo (1984: 277) sums up this analysis of the agricultural petite bourgeoisie thus:

In summary, even though there is considerable evidence that the agricultural petite bourgeoisie has declined since 1961, there is also evidence that before this time it steadily increased, and some evidence that it has persisted in altered forms over the last two or three decades.

Following his discussion of the agricultural sector, Cuneo examines the non-agricultural productive sectors (e.g., fishing, forestry, mining, construction, transportation, and, manufacturing), the productive service sectors (e.g., personal, and recreation), the unproductive service sectors (e.g., wholesale and retail trade, and finance), and the professions (e.g., private and public, productive and unproductive).

Cuneo divides labour, following the precedent set by Marx, into two categories: productive and unproductive labour. Essentially, these categories refer to the distinction between primary and secondary versus tertiary industries. For example, mining and manufacturing versus sales and service. Briefly, the distinction between productive and unproductive labour is derived from the argument (Cuneo, 1983: 58) that,

the exploitation of labourers by their employers, and the generation of wealth and surplus value, occurs only in the sphere of production. Therefore the rate of surplus value can be discussed only for this sphere.

The theory of 'productive' versus 'unproductive' labour is open to some criticism. It is somewhat difficult to conceive how workers in sales and marketing are unnecessary to the production and distribution of wealth in society. Further, from a theoretical standpoint it may be that labor and work are not best understood in economic terms. On this, Arendt (1956) for

example, provides a devastating critique of Marx's theory of labour. She (1956: 105) argues that Marx's theory is derived from misunderstanding the distinction between animal laborans and homo faber. She (1956: 87) comments:

The distinction between productive and unproductive labor contains, albeit in a prejudicial manner, the more fundamental distinction between labor and work. It is indeed the mark of all laboring that it leaves nothing behind, that the result of its effort is almost as quickly consumed as the effort is spent. And yet this effort, despite its futility, is born of a great urgency and motivated by a more powerful drive than anything else, because life itself depends on it. The modern age in general and Karl Marx in particular overwhelmed, as it were, by the unprecedented actual productivity of Western mankind, had an almost irresistible tendency to look upon all labor as work and to speak of animal laborans in terms much more fitting for homo faber, hoping all the time that only one more step was needed to eliminate labor and necessity altogether.

For Arendt animal laborans, the labor of our bodies, and homo faber, the work of our hands, are distinguished by the character of the produced thing. Hereby, the product of homo faber is characterized by its permanence; Whereas, the product of animal laborans is least durable and barely survives the moment of production. The durability of things defines their "worldliness" and the sum total of this process of reification forms the human artifice. The ideal representative of homo faber is the artist. She remarks (1956: 173-174):

If animal laborans needs the help of homo faber to ease labor and remove his pain, and if mortals need the help of homo faber in his highest capacity, that is, the help of the artist, of poets and historiographers, of monument-builders or writers, because without them the only product of their activity, the story they enact and tell, would not survive at all.

The Marxian theory further argues that "value" is generated in production by the contribution of workers' labour to the labour process over and above the costs of the subsistence of labour (i.e., beyond the cost of dead and living labour). It is this surplus labour, in the sphere of production, which is said to produce surplus value. This distinction is based on Marx's elaboration of the "Theory of Surplus Value". This theory and the distinctions which flow from it are not widely accepted today⁹. However, for his discussion, these are the categories Cuneo employs.

Cuneo's analysis of the petite bourgeoisie is concerned with the petite bourgeoisie as productive in Marx's sense that they produce surplus value. Unproductive sectors, according to the theory, do not produce surplus value, but instead share or realize it through the circulation and exchange of money and commodities produced by productive labour. The theory of production and circulation is interpreted by Cuneo (1983: 69):

⁹ For an excellent discussion on the problems of Marxian economics see Lebowitz (1982).

Thus, before the capitalist can begin production, he must transform his money into labour power and means of production. These then enter the sphere of production symbolized by "... P ...". Once production is completed, the capitalist can bring his commodities (e.g., automobiles and furniture) to the market and sell them in the sphere of circulation (C'-M'). The C' at the end of production is greater than the C at the beginning of production. (Cuneo, 1983: 69).

This categorization is utilized by Cuneo (1983: 285) based on the rationale that,

services are divided between productive and unproductive labour in Marxist political economy. Recreational services in the private sector and personal service are productive because they produce exchange value and surplus value. Business services are mainly unproductive because they assist in the realization but not the production of surplus value. Community and government services, both in the public sector produce use-values but not exchange values and so are unproductive.

The following will examine Cuneo's results for the persistence of the petite bourgeoisie in the nonagricultural labour force (e.g., professionals, retail traders, manufacturers, and fishers). It must be kept in mind, that in comparison to the agricultural labour force the petite bourgeoisie class in this sector is much less numerous. First, in the professions: the pure and diluted petite bourgeoisie is strongest in the autonomous professions (e.g., lawyers, notaries, physicians, surgeons, dentists, osteopaths, chiropractors, and veterinarians); weak among the semi-professionals (e.g., artists, authors, editors, journalists, musicians, photographers, and architects); and, very weak among the semi-autonomous professions (e.g., welfare workers, teachers, nuns, brothers, religious workers, librarians, nurses, judges, magistrates and the clergy).

Regarding the overall picture for this category it "...cannot be argued that the petite bourgeoisie persists in any sense among professional occupations" (Cuneo, 1984: 293).

Second, in the service sectors Cuneo found the following in the unproductive sectors of trade and finance. In finance there are pockets of petite bourgeoisie strength among insurance agents, stocks and bond brokers, and, real estate agents. Among wholesale and retail traders, the petite bourgeoisie is larger in retail than in wholesale trade. In the productive service sectors, those in personal services, especially barbers, hairdressers, and bootblacks show the highest proportion of both pure and diluted petite bourgeoisie.

Third, in the nonagricultural productive sectors (e.g., manufacturing, mining, transportation, and fishing), the major findings are as follows. First, in manufacturing, the pure and diluted petite bourgeoisie are strongest among boot and shoe repairers, dressmakers and sewers, blacksmiths, jewellers and watchmakers, radio and T.V. repairers, automobile repairers, upholsterers, and mechanics. Second, in transportation, although the petite bourgeoisie is comparably small in relation to the nonagricultural labour force (e.g., 4.3% of transportation and 9.6% in the nonagricultural labour force in 1931) it is however strongest in the labour intensive sectors of taxi drivers and cartage (e.g., in 1931, 19.2%, and in 1951, 25.7% of taxi drivers are classified as petite bourgeoisie). Third, in mining and forestry, Cuneo's data indicate steep declines in the percentage of both pure and diluted petite bourgeoisie. Although, in

forestry there is a presence of independent operators during the 1931 and 1951 period, while in mining there is a steady decline in all categories for the petite bourgeoisie. This summary of Cuneo's data supports the thesis that the petite bourgeoisie has persisted in some sectors of Canadian industry and in particular occupations. Consequently, there is evidence that (1984: 295),

when the sectoral data is examined, it is obvious that independent commodity production has been much more resistant to the expansion of the capitalist mode of production in some sectors than in others. In agriculture, fishing, personal services and retail trade, there has been a relatively weak centralization in the means of production and circulation.

The Persistence of the Petite Bourgeoisie in Fishing

The persistence of the petite bourgeoisie in fishing has been a topic of recent debate among researchers concerned with this industry (e.g., Guppy, 1986; Sinclair, 1984; Clement, 1983 and 1984). In fact, the petite bourgeoisie is very significant in this sector and Cuneo (1984: 295) argues in fishing,

the petite bourgeoisie has been comparatively large and survived for a greater length of time.

Cuneo's data indicate that in fishing the percentage of workers who could be classified as petite bourgeoisie (i.e., diluted petite bourgeoisie) range from 72% in 1931, to 70% in 1941, to 71% in 1951. These percentages are the highest of all the occupations examined. Consequently, relative to other sectors in the Canadian economy, and consequent to what Cuneo

(1984: 295) describes as 'uneven capitalist development'¹⁰, in fishing,

there has been a relatively weak centralization, in the means of production and circulation.

Other than fishing, only in agriculture has the petite bourgeoisie persisted to such high levels. The data suggest that the proportion of petite bourgeoisie is higher among fishers than farmers.

According to the data Cuneo provides, in agriculture, the percentage of workers who could be classified as petite bourgeoisie (i.e., diluted petite bourgeoisie) ranges from 57% in 1931, to 60% in 1941, to 66% in 1951. These percentages are lower than in fishing. These figures suggest the proposition that,

while a greater percentage of fishers are petite bourgeoisie than are those in agriculture, their relative number has declined during the 1941 to 1951 period.

The weakening of the petite bourgeoisie in fishing is apparent not only for the 1931 to 1951 period but continues to 1971. In fact, at the national level, between 1951 and 1971 there is a marked decline in the diluted petite bourgeoisie from 71 to 52%. Compared to farming where the decrease is for the diluted petite bourgeoisie from 66.3 to 48.9%. Hence, the proportion of petite bourgeoisie is still higher in fishing

¹⁰ The term uneven capitalist development refers to the process whereby certain regions remain underdeveloped in relation to other areas. This concept has been used to examine regionalism in Canada as well as underdevelopment. The concept was used to explain underdevelopment in Latin America by Frank (1969).

although undergoing a reduction in numbers. These trends support the proposition (Cuneo, 1984: 277) that,

petty commodity production has been stronger in fishing than in agriculture, but appears not to have increased at the same rate after 1941.

Cuneo provides three possible explanations for the persistence of the petite bourgeoisie in agriculture and fishing. First, he suggests the importance of historical shifts affecting the Canadian economy in general. He points out the transition from the depression years of the 1930s to the post war boom of the 1950s. He argues that during the post war era Canada experienced a period of economic expansion which allowed increased opportunities for both the small and large business sectors. This expansion was curtailed during the 1951 to 1967 period with consolidation and the development of monopolies, and the economic stagnation of the 1967 to 1981 period.

His second explanation points out that the petite bourgeoisie has persisted in those areas where only limited amounts of initial investment are necessary to set up shop. He argues that given uneven development, this class has retained control where "(e)xtensive capital is also not required to set up a business" (Cuneo, 1984: 295).

The third possible explanation, provided by Cuneo, suggests the possibility of factions within the sphere of production. Drawing on Marx's categories he argues there are three spheres of production: (I) production of the means of production; (II) production of the means of subsistence; and, (III) production of luxury commodities. Applying this classification scheme to

fishing and agriculture the petite bourgeoisie is said to persist because of the type of commodity both sectors produce. In both of these sectors (Cuneo, 1984: 297),

the petite bourgeoisie appears to have persisted longest in Department II and III and was destroyed earliest in Department I. Thus, this class was larger and persisted longer in agriculture and fishing organized to produce food

This basic relationship is extended, where Cuneo argues that the petite bourgeoisie tends to persist longer if they are "devoted to the circulation of physical commodities from Department II and III than from Department I" (1984: 297). This would be particularly relevant to fishing and agriculture which are concerned with the production of subsistence (Dept. II) and occasionally with production of luxury commodities (Dept. III).

Cuneo explains the persistence of the petite bourgeoisie in fishing and agriculture through labour force and historical census data. He argues that there is ample statistical evidence to support his claim that this class of producer has not slipped quietly from the stage of history. He attributes this persistence to the nature of the capitalist productive process and argues that this form of production in these sectors most efficiently contributes to the process of capital accumulation. *

While this explanation is correct, his analysis leaves one unanswered question. Why did the petite bourgeoisie persist longer in fishing than it did in agriculture?

There is one striking difference between fishing and farming which Cuneo's analysis does not take into account. Fishing, unlike farming, is a "common property" resource. The fishery has

been traditionally organized - as a "common property" resource where harvesting is based upon the "rule of capture". Under these conditions (Pearse, 1982: 75-76),

fish in the sea are not assigned through property rights, or licences to any particular users; each user competes directly with all the others for a share of the catch, and has no right to any particular quantity until he has landed it .

Consequently, this common property factor is seen to have a significant impact on fishing - a condition which is absent in farming.

With a "common property" resource, individuals may have free access to the resource. Under conditions where a minimal amount of capital and equipment is necessary, it is then possible for small scale operators to participate. In farming, while it is necessary to invest capital in equipment, the ownership of land is an imperative. In farming, then, there exists private property which can be, and very often is, a prohibitive expense.

In the bulk of the sociological and anthropological literature on fishing, this problem of "common property" is described under a series of different titles which have a similar meaning. Currently, however, in the sociological literature on fishing the concept of "common property" has become the subject of some debate.

Political Economy of British Columbia's Fisheries

The common property aspect of the fishery is the main topic of a recent publication by Marchak et al. (1987). Curiously, this study is entitled Uncommon Property: The Fishing and Fish-

Processing Industries in British Columbia. The explanation for this curiosity is provided by Marchak in her introductory remarks. She (1987a: 3) states:

The property status of fish and fishers is a central issue in our studies. Who has the right to fish, the right to manage the fishery, the right to exclude others, the right to profit from the sale of fish? Fish have been called common property but there are issues buried rather than illuminated by that designation, and we argue here that these issues can be better understood if we treat the right to fish as state property.

She goes on to argue that the crucial difficulty at issue in the fishery is a disjuncture between access rights and management rights. In ensuing chapters, further issues regarding labour and the regulations of the state on that process are discussed. The book provides an excellent overview of the British Columbia fisheries from the political economy perspective.

There are interesting chapters on capital and the state (by McMullan, Muszynski, and Pinkerton) and, community and region (by Warriner). In her concluding remarks, Marchak (1987c: 359) summarizes the collective conclusion of the essays thus:

This is not a situation involving good guys and bad guys: rather it is one in which numerous groups with competing interests are trying to solve an unresolvable contradiction. The contradiction is in the property rights of the fishery: the provincial government has formal ownership of land and resources; the federal government claims formal ownership of the fish and of the right to allocate fishing licences; private individuals with licences are obliged to compete for capture; and captured fish, now as commodities, are private property...The complexities mount when the private property interests of other industries and other users of the fish habitat are brought into the picture.

These remarks indicate the complexity of the political economy of fishing. The structural conditions impinging on the industry are formidable. These essays are admirable in attempting to clarify the situation.

The strengths of the analyses are that they provide background and contextual information on the British Columbia fisheries. In particular, three of the essays are informative: Muszynski's (1987: 46-65), "Major Processors to 1940 and Early Labour Force: Historical Notes", Warriner's (1987: 326-350), "Regionalism, Dependence, and the B.C. Fisheries: Historical Development and Recent Trends", and, McMullan's (1987b: 107-152) "State, Capital, and the B.C. Salmon Fishing Industry". These three essays capture the essence of the political economy argument.

Muszynski provides clear insight into the history of the processing sector including: ABC Company, B.C. Packers, J.H. Todd and Sons, Nelson Bros., Canadian Fish, and the Prince Rupert Fisherman's Cooperative. However, her discussion on the labour process is thin and primarily concerned with the cannery workers from 1885 to 1912. Although brief, it is informative regarding the racially discriminatory practices involving native women and Chinese men.

McMullan (1987b: 107) begins with an historical section on the formation of petty capital out of simple commodity production between 1880-1925. For example, he (1987b: 112) states:

By 1925 the social relations of production were well formed: a thriving petty capitalist sector of harvesters were the dominant class of fishers, with wage labour increasingly concentrated inside the cannery factories.

His discussion of the "modernization period" is new and cogent. He argues that it was during the early years of World War II that Canada, and the B.C. fishing industry, catapulted from a minor to a major industrial nation, and, industry. At this time the fisheries came under the authority of "the War Committee, two committees of Economic Defense, the Food Production and Marketing Committee, the Price Control and Labour Committee, and a Wartime Fisheries Advisory Board" (1987b: 113). During these years, the Pacific coast fishery experienced guaranteed markets and fixed prices. This stimulated a process of modernization and expansion. According to McMullan (1987b: 117):

State guaranteed markets, price controls, depreciation packages, investment incentives, new market potentials, good salmon fish runs, and increased production resulted in a modernization program for the capital sector.

The outcome of this modernization was, according to McMullan, the establishment of monopolistic relations dominated by B.C. Packers. Corresponding with this consolidation in the processing sector was the returning menace of overcapacity in the harvesting sector. Accordingly, McMullan (1987b: 120) argues:

The investment per person in primary fishing operations doubled in the ten years following the war and represented an increase in the size of fishing craft, in power equipment, and electronic, navigational, and fish-locating devices.

The result of modernization threatened the survival of fish stocks and economic returns. By the 1960s the industry was, in parochial terms, characterized as "too many fishermen chasing too few fish". These concerns inspired the return to regulations (e.g., The Sinclair Report in 1960 and the Davis Plan in 1968). These incentives were supplemented with federally funded capital assistance programs. These, in turn spurred the entrance of banking and investment capital into the industry. McMullan (1987: 127) states:

The banks entered when industrial capital exited. They had high deposits and were eager for new investment markets. Banks were encouraged and aided by state policies. Despite licensing regulations, the state created a contradictory program; they spurred on further capital growth by expanding their independent business programs for fishers and by increasing capital subsidy programs to ship builders and the processing sector.

The picture McMullan paints is one where there is increasing state regulation of the fishery, increasing concentration in the processing sector, and increasing indebtedness of independent producers in the harvesting sector. He (1987: 136) summarizes the situation thus:

Since 1968 state intervention has resulted in uneven, ad hoc, and problematic social policy for fishers. Through licensing and capital assistance programs, the state has transformed property rights and relations, reduced the size of the fleet, and strengthened the formal position of petty commodity producers in the fishery. But it contributed to increased and redundant overcapacity and overcapitalization, created an overregulated control apparatus, restricted the "privilege to fish", and facilitated the real subordination of petty producers to financial and industrial capital.

McMullan's essay, provides a clear portrait of the political and economic contradictions fanning the industry's crises, bankruptcies, and debts. Within this context the social relations of production are antagonistic and the fishers appear to be fielding the brunt of the difficulties.

In another essay in the volume, Warriner (1987: 326-350), examines the industry from the "development-underdevelopment" stance within the political economy perspective. His discussion is revealing. He spells out the probable causes for the decline in rural cannery towns, and the increasing size and economic importance of urban based canneries. He suggests that the trend toward urban concentration is best explained by the closer availability of markets to urban centers. This, he goes on to argue, results in the development of rural, underdeveloped hinterlands. To substantiate this claim, he reviews the tumultuous history of the B.C. fisheries. He (1987: 347) summarizes his discussion thus:

The coastal fishing economy has risen and fallen on the basis of the prevalence of fish and the economic tide. This has happened in close accord with a model of regional dependency in which the current conditions of entrenched underdevelopment and economic disadvantage affecting the rural coast have resulted from actions taken at the urban core.

Taking the study by Marchak, et al. (1987) into account we are faced with the ominous conclusion that the storm clouds are brewing not only over the economic solvency of fishers in their battle with the state, processors and finance capital, but an even greater darkening of alternatives over the persistence of the rural fishers. For the present, however, fishers have managed, given the particular physical and technical constraints of fishing, to maintain control over their labour process. To the extent that this is true they are able to participate in a vibrant work culture and occupational community. Further, it may be that it is these factors which may help them to save their sector of the industry.

In sum, the discussion in this chapter cautions against a over-optimistic view of the extent to which the current physical and technical conditions, work organization and work culture of Pacific coast fishers may be able to resist the imperatives of the capital accumulation process. This topic will be examined in the following chapter.

CHAPTER VIII

CONCLUSIONS

You were born a fisherman as the fish was born to be a fish. San Pedro was a fisherman as was the father of the great DiMaggio.

(E. Hemmingway, Old Man and the Sea)

This chapter will discuss the weaknesses of the Craft-Professional thesis, and the Political Economy perspective. The first section will discuss weaknesses of the Craft-Professional thesis. This will be followed by a critique of Braverman's analysis of labour and monopoly capital, and the political economy approach to British Columbia's fisheries.

Skill and Technological Change

Rinehart (1975: 134-138) challenges the adequacy of Blauner's argument regarding the nonalienated status of automation. He argues that workers in automated industries merely watch dials and that "dial watching" does not involve skill but merely responsibility. Skill would require both components of execution and conceptualization. It is obvious that the operators job must involve some skill although possibly not as much as Blauner argues or as little as Rinehart suggests.

Rinehart also queries the notion of worker control over the methods and quality of work in these industries. He argues that monitors do not directly control production or processes, nor does he control quality as quality is pre-arranged by technical office staff. Also the control over the process of work reduces to control solely over timing.

There are three other problem areas. First, there is the issue of the impact of computerized technology on automated

industries. It is possible that the use of computers may reduce the responsibilities of automated equipment operators and monitors.

Second, it is difficult to assess the relationship of the overall content of skill required by automated industry workers. Finally it is not apparent that the assumption of progressive stages leading towards automation is acceptable. Automation may not have substantial impact on the overall labour process.

In terms directly critical of the Craft-Professional thesis, Hill (1981) argues that Blauner's thesis is challenged by recent evidence. He suggests that current experience shows that the composition of firms may have been historically dependent on technology but that this is no longer the case. He cites printing and longshoring as two examples where organized labour has attempted to preserve traditional craft distinctions and privileges which are no longer directly related to the content of jobs. For example, it is currently the case that the tasks of compositors working on modern computers are clearly little different from those performed by secretaries on word processors. He further argues, longshoremen have acquired many of the tasks associated with teamsters. Other evidence (e.g., Foster, 1986) suggests that even the dockers, who have been a consistently strong representatives of worker control, are experiencing challenges to their autonomy. He (Foster, 1986: 302) argues,

longshoremen are everywhere on the defensive in relation to job control. Those ports that in many ways appear most "modern", like Montreal, have entirely bypassed "decasualization under union auspices" and are firmly in the grip of management. The task of labour on the

waterfront, therefore, becomes one of avoiding this path, and of finding ways to enlarge upon the course traditionally assumed by ports like San Francisco and Vancouver. If there is to be a "born-again labour movement," the longshoremen themselves will once again have to be at the very edge of change.

The research on longshoring, and the critique of the Craft-Professional thesis which it implies, brings into focus one of the major conceptual difficulties inherent in many sociological studies of the labour process. This problem is the difficulty of clearly specifying the definition of "skill" and its relation to technology. Blauner, and many researchers adopting a Craft-Professional approach, are open to this criticism. This involves the failure to identify the major aspect of the process of craftwork which is considered essential to craftworker's autonomy.

This problem, whether it is in fact skill which sets contemporary craftworkers apart from rationalized wage-labour, is not strictly a problem with Blauner but extends to other researchers. Wood (1982: 13) argues:

Major schools, including human relations and the British tradition of industrial relations theory, for example, have all developed against a background of certain assumptions about the way in which the skill content of jobs has changed. Furthermore, many of the studies of industrial sociology have been concerned with the impact of, and reactions to technological change...Most Marxists have, in fact, shown some concern for deskilling; Gramsci...explicitly wrote about Taylorism and Fordism, and a central assumption of the Frankfurt school is the increasingly degrading and one-dimensional nature of modern employment. But in all such work there has been a failure to consider in depth the real nature and content of jobs, and this is even true of the empirical study of technology and alienation by Blauner. *

The above comments by Wood bring to mind the "social construction of skill" argument. That is, that some workers have managed to retain the label of 'skilled craftsmen/workers', although the content of their work has been deskilled. This phenomenon has two explanations. One argues that skill has been used as a label by management to fractionalize the working class by giving some workers more privileges than others. The second, maintains that strongly organized workers through exclusive unionism, utilize skill as a label to further their own interests. These arguments point to the fact that all skills are socially constructed. The question then raised is--how is it that work becomes differentiated regardless or independent of the necessity of technical skill? How is it, for example, that some jobs become defined as women's as opposed to men's work? By way of illustration, Steedman (1986) has shown how women textile workers were excluded from unionization by male workers who were attempting to protect their privileged position. The implication

is that it is imperative to undertake a specific analyses of the changing technological and social conditions affecting labour.

Penn (1986) has gone beyond a simplistic social construction of skill thesis. He argues that in the engineering and textile industries workers developed strategies of exclusion, and maintained and even created skill. This conclusion is drawn from a historical analysis of both industries during between 1856 and 1964 in Britain. He interprets this maintenance of privilege as related to the general importance of skill within each industry. He (Penn, 1986: 106) argues:

Essentially, what appears to have been involved in the cases of the engineering and cotton industries are attempts by certain sections of the manual working class to increase their market power as sellers of labour with the framework of the capitalist system of production. What is at stake is an attempt to restrict the power of capital and its management within the work place, to modify certain aspects of the fundamentally asymmetrical relationships of power involved in capitalist production, yet the effort secures such alternations by controls over other manual workers. These involve indirect controls over other workers in production itself.

Printers, it is clear have maintained the label of skilled workers in the face of technological change. Recent research (Travis, 1986) on the Canadian printing industry, has spelled out the technical content and changing social relations of work from 1820 to 1910. This research tends to confirm Blauner's and Penn's argument that it is not sufficient to examine broad shifts in technology, or, accept simple construction of skill thesis. Travis (1986) argues, printers maintained the status and privileges of skilled craftsmen through the exclusionary

practises which were in part dependent upon the overall importance of printers' skills within the context of changing technology.

These arguments bring out the first important weakness associated with the Craft-Professional thesis: the lack of a clear definition of the relationship between the skill levels of workers and technological change. A second, interrelated issue, is the question of clearly specifying the social conditions which give rise to worker control and resistance.

Control and Resistance

In this regard recent evidence is somewhat more damaging to the Craft-Professional thesis. Gouldner (1954) argued that it is possible, given the physical and technical conditions of mine work, that miners will retain craft control of the productive process. As discussed in Chapter Two, this control has been maintained in certain areas (i.e., the Cape Breton mines) and fallen away in others (i.e., the Sudbury mines). What is distinctive about the Cape Breton miners which has allowed this situation? Frank (1986) has analyzed the working conditions, labour process and work culture and control in the Cape Breton mines. He, like Gouldner, found that hazardous working conditions are directly related to worker control. He also argues that these workers are peculiar in that they share a common social history. In the 1920s the great majority of these men were second generation Scottish immigrants who were well versed in Fabian ideology. This social-intellectual background was furthered and reinforced by an active and radical union

membership and leadership (Frank, 1986; Abella, 1973).

Consequently, the Cape Breton anomaly may be explained not in terms of technology and physical conditions, but in terms of the workers social and intellectual history.

One further aspect of the Craft-Professional thesis is contradicted by recent experience. Blauner (1964) argued that assembly-line workers experience the least amount of on-the-job control and are the most alienated of contemporary workers. Contrary to this, the Canadian Auto Workers (CAW) are currently one of the most active unions in the battle with management. These workers have, again through astute union leadership and exclusionary practises, managed to maintain some control over the productive process and acquire economic benefits. In 1984 they broke away from the international, American based, United Automobile Workers (UAW), and in 1987 the union won substantial concessions from the big three automakers. Whether these recent events signal a change in the tide of the Canadian labour movement or are an isolated case is unclear. However one thing is clear, these workers are certainly not the isolated and disaffected mass Blauner describes. Although, they are still "alienated" in the marxian sense.

What the autoworkers, the miners, and the printers show us is that the labour process is circumscribed by the capital accumulation process. In this political-economic context workers continue the ongoing struggle for worker control. This observation has been clearly stated by Silver (1982: 238):

Thus, quantitative differences between craft, mass and process form of production notwithstanding, they are similar to the extent that ownership, managerial planning, and control continue to play significant roles in shaping the production process.

Research which has examined the broad context of the labour process in relation to managerial control and capital accumulation is the political economy perspective. This perspective will now be examined. Specifically, I will examine difficulties with Braverman's thesis on the labour processes, and the discussion by Marchak et al., of the political economy of British Columbia's fisheries.

Braverman

Since the publication of Labour and Monopoly Capital there have been a series of valuable critiques. Most of these critiques can be grouped under two general categories. On the one hand, there are those who criticize the "objectivist" position vis-a-vis the working class. While on the other hand there are those who criticize the lack of the analysis of the interface between the labour process and the broader political economy¹. The lines of criticism stemming from these two general positions are many and varied and a complete summary of them would take us too far afield and be counterproductive. Instead, this evaluation of Braverman will focus on the main lines of his argument and how these affect his conceptualization of the labour process. The general critique is that his analysis is placed at

¹ For a brief review of this issue see Elger (1982); for a more detailed account see Palmer (1983).

so abstract a level that it allows him to ignore the concrete manner in which labour is performed. The three most important weaknesses in this regard are his simplification of the working class into a homogeneous mass, his romanticized ideal of the pre-industrial craftsman, and his overemphasis on Taylorism.

The first weakness is the oversimplification of the working class. This stance is largely derived from Braverman's uncritical adoption of the notion that management has, through the utilization of Taylor's Scientific Management, rendered the labour process into a series of minute and repetitive tasks. The implication is that management, spurred on by the drive for the accumulation of capital, has created not only a deskilled but an undifferentiated working class. The oversimplification weakness stems from Braverman's focus on capitalist rationalization and his objectivist position on the working class². The outcome of this is that in Braverman's analysis the working class appears as a mere reflection of the objective conditions created by the whims of capital accumulation. Consequently, he neglects to comprehend workers as an active force, and instead views them as passive pawns manipulated by capital. This failure to examine the sources of workers' resistance is a serious deficiency. In his review of Braverman, Wood (1982: 15) argues:

Indeed, one of the main criticisms that has been levelled at Braverman is his rendering of the working class as passive, inert, living 'in

² By the objectivist position is meant that Braverman, in his often quoted disclaimer, states that his study is about the working class as a class-in-itself, rather than a class-for-itself (Braverman, 1974: 26-27). In other words, with this brief comment he attempts to eliminate the relevance of a concern with the subjective experience of workers.

accordance with the forces which act upon it' ... He thus neglects the way in which the working class has created its own organizations, trade unions and political parties; associates workers' knowledge simply with that required to perform given jobs; and underplays the differences between sections within the working class. By contrast, he treats the dominant class as a totally organized, omniscient and united force.

The second weakness that is important for the purposes of this study is Braverman's idealization of the pre-industrial craftsman. This ideal is the comparative base for his argument on the degradation of labour in the twentieth century. However, nowhere in Labour and Monopoly Capital does Braverman provide a detailed account of what pre-industrial craft work entailed. In fact, much of the literature suggests that these workers were an insignificant portion of the pre-industrial labour force.

Although it may be argued that the master craftsmen of the pre-industrial era were significantly affected by industrialization there is no evidence to suggest that they were a majority of the population. It seems the great majority of the population in pre-industrial societies was engaged in agriculture, fishing and forestry (Ornstein, 1983: 237-243). In contrast then to Braverman's account on progressive deskilling, Faunce (1968: 20-24) argues that for the majority of farm workers industrialization did not result in degradation. He argues:

For the unskilled farm workers who moved into industrial employment there was not necessarily any loss of social status since he was in a relatively low status position prior to industrialization. The kind of unskilled factory work for which he could qualify, however did nothing to enhance this status level. More importantly, in the impersonal, urban-industrial

status structure, work became a much more important basis for status assignment that was the case in pre-industrial villages (Faunce, 1968: 23).

According to Faunce's discussion, of the total American labour force, those involved in farming, fishing and forestry declined from 59% in 1869 to 38% in 1900 and, to 12% in 1950. A similar pattern is found in Canada (Ornstein, 1983; Lowe, 1983). Other researchers confirm this interpretation (e.g., Littler, 1982: Elger, 1982) and Wood (1982: 19) argues:

There is clearly a romanticism underlying Braverman's work, for not only did such workers not constitute the majority in the nineteenth century, but also the majority of workers until only a century ago lacked basic skills such as literacy, which are now, mistakenly perhaps, taken for granted and all too often neglected in discussions of the development of the working class and the prerequisites for skilled work.

- But
Braverman's definition
includes
cognitive

It is this ideal of the pre-industrial craftsman which lies at the base of Braverman's analysis and is the model for what theorists such as Braverman think work should have been like. However, there is little or no evidence of what it actually was like.

The third important weakness is the overemphasis of Scientific Management. Both Wood & Kelly (1982) and Littler (1982) argue that Braverman's position is both theoretically and empirically inaccurate. Wood and Kelly argue that the application of Scientific Management was not as widespread or as comprehensive as Braverman implies. Littler (1982) in an analysis of industry in Britain during the 1880-1889 period, argues that Taylorized forms were unevenly adopted because while some industries accepted rationalization, others did not.

Further studies in Canada and the United States cast doubt on the question of the explicit impact of Taylor's ideas on the labour process.

In Canada, Lowe (1983: 292) argues that "Taylor's package of managerial reforms was seldom adopted completely". In his review of the literature Rinehart (1975) argues that information on the implementation of Taylor's ideas in Canada is sparse. However, he assumes that American branch plant managers would have at least been aware of, and may have adopted some of his ideas in this country. Further he cites only two incidences in which Taylor's ideas were explicitly adopted. They are the Canadian Pacific Railroad and the Canadian textile industry (e.g., Canada Cotton in Hamilton). Recent information on the use of Taylor's ideas in the United States reports a similar pattern. Caputo (1984: 61) argues:

In most cases, Scientific Management was fought to a standstill by workers wherever it was tried. It lead to such a bitter and violent strike at the Watertown Arsenal in New York State, for example, that it prompted the United States House of Representatives to hold special hearings on Taylorism and other systems of management and their introduction into government arsenals!

In short, the importance of Taylor's ideas for the shift in the form of management's control over labour cannot be refuted on the one hand. On the other hand, the precise impact of his system on the organization of work remains unclear. What in fact can be argued is that Taylor's ideas foreshadowed a generalized increase in the complexity of management control.

The increasing problems of control of workers necessitated management to move to a more effective method. This method attempts to adapt workers, or as Braverman argues to 'habituate' workers to the working conditions. In other words the solutions provided by Scientific Management proved to be inadequate and alternative management initiatives were required. Rinehart (1975: 138) makes a similar argument:

It was because scientific management failed to provide a fully satisfactory solution to the "labour problem" that the human relations school came into being. If workers could not be subdued by the stopwatch, perhaps a more "humane" approach was in order.

The human relations school grew out of the famous Hawthorne Studies at the Western Electric Company. These studies were carried out by the Harvard Business School researchers, under the supervision of Elton Mayo, between 1927 and 1932. The initial problem this research set out to investigate was the relationship between physical working conditions and worker productivity. The researchers, in a series of tests, manipulated lighting conditions, rest breaks, length of working day, provided free lunches, and instituted piece rates. It was found that regardless of the variations in environmental conditions workers increased productivity. This occurred even when the working conditions were returned to the pre-test level. This puzzling result led the investigators to speculate that productivity was in some way related to the special treatment which these workers had received from management. According to Lowe (1983: 293):

This is the famous Hawthorne effect. It taught managers an important lesson: the human treatment of employees improves their motivation to co-operate and be productive.

The second major finding of the Hawthorne Studies was the importance of informal work groups. This result was derived from a series of intensive interviews with employees, and, observations in the Bank Wiring Room³. The results of these lines of investigation indicated the underlying importance to productivity of worker informal groups. The researchers found that worker behavior was governed by the informal norms of: 1) don't be a rate buster, 2) don't be a chisler, 3) don't be a squealer, and, 4) if in a supervisory role, don't maintain social distance or be officious.

This brief overview of the human relations school underlines the third criticism of Braverman. Namely, if the adoption by management of Taylor's ideas was as pervasive and effective as he suggests, then why did management resort to an alternative position as expressed in the human relations school?

Braverman's theory has thus been subjected to three important criticisms. First, his oversimplification of the working class into an increasingly homogeneous, simplified and undifferentiated mass. Second, his idealization of the labour of pre-industrial craftsmen. Third, his over-reliance on Taylor's system of Scientific Management. These three weaknesses are attributable to Braverman's dependence upon a theory of political

³ In the Bank Wiring Room, workers were wiring telephone switches. These workers were observed over a seven month period. There were fourteen workers in the room.

economy and class analysis which is pitched at such an abstract level that it neglects the concrete labour process.

Political Economy and Canadian Sociology

This tendency of abstraction is also apparent in the political economy approach in Canadian sociology (Grayson, 1983). The focus of this tradition is on the impact of the drive for capital accumulation on social relations. Authors in this tradition tend to emphasize the structural preconditions for change. The interpretation is derived from an investigation of historical shifts in the mode of production which in turn cause changes in social and cultural formations. In other words, the social and cultural sphere is seen as ultimately dependent upon, if not directly or indirectly determined by, economic relations of production which are at the same moment defined as political relations. These political relations arise because production is viewed as ultimately controlled for, and in the interests of, a particular segment of the total population. The outcome of this viewpoint is that the cultural sphere is at best viewed as inconsequential, and at worst as a knee jerk reaction to dominant interests.

An example from everyday life will illustrate this point. A young artist's paintings, although of remarkable quality in both form and content, never reach the major galleries let alone recognition in the mass media. This artist continues to labour at his chosen craft undaunted by the lack of formal recognition. The political economist, unaware of the particular artist's labour process, and focusing on the mass media complex, would

argue that Canadian culture is dominated by powerful political and economic interests and hence, would conclude that there is in fact no true Canadian culture except that which expresses dominant class interests. In contrast, a researcher interested in the actual labour process of Canadian art may come to a different conclusion: namely, that an artistic culture does exist in Canada and it is not necessarily tied to dominant interests. In fact, this researcher may conclude that the very activity of the unrecognized artist is an example of cultural resistance to external control. Consequently, a shift in focus from structure to process allows a quite different interpretation. Taking a similar approach to Braverman's discussion, we can see how this neglect of a 'class-for-itself' for a 'class-in-itself' can lead to a very serious inadequacy⁴.

Other Criticisms

Before leaving this discussion and evaluation of Braverman's theory it should be kept in mind that this does not exhaust all possible lines of criticism. Other issues could be addressed. Such a discussion might evaluate the theoretical consistency of the notion of monopoly capital which Braverman has accepted from Baran and Sweezy (see Cleaver, 1979), or his limited empirical investigation of the accumulation of capital and the process of the real subordination of labour, (see Elger, 1982). Also, it is

⁴ A 'class-in-itself' is the number of individuals who share a common relations to the means of production. Conversely, a 'class-for-itself' involves both the objective criteria of relationship to the means of production but also involves the subjective component of awareness, i.e., class consciousness.

possible to query his statement that technology is independent from the relations of production (Faunce, 1968).

It is this limited conceptualization of the role of technology which has specific relevance to the organization of a particular work process. In other words, at a certain level of technology it is at least possible for workers in contemporary society to own their own tools and/or means of production. This ownership at least allows some measure of control of the process of work⁵.

Finally, the notion of deskilling is difficult to accept. His analysis is here again at too abstract a level. He never provides an analysis of skill, and casual observation disconfirms the notion of a progressive deskilling. It is difficult to know if skill has decreased as Braverman contends or if it has increased (see Crompton & Reid, 1982; Penn, 1982; Littler, 1982).

Difficulties inherent in Braverman's thesis are not explicitly duplicated in recent research in the political economy tradition. Current researchers have recognized many of the difficulties inherent in Braverman's approach and have developed more sophisticated analyses. Currently, there is increased awareness of the heterogeneity of the working class, less overt reliance on an oversimplistic view of management's adoption of Taylorism, and a clearer picture of the preindustrial craftsman.

⁵ Another fruitful line of criticism of Braverman's account is his notion that control is absolute where workers lose and management wins in a zero/sum game. Some authors (Buraway, 1979; Friedman, 1977) alternatively argue that control is a relative phenomenon.

However, the general critique of abstractionism still holds. It is to this topic the discussion will now turn.

The Fishery and Political Economy

In Canada, the political economy perspective began its revival in the late 1960s to mid-1970s. It is both an indigenous intellectual tradition (e.g. Innis, 1930; Lower, 1946) and contemporary community of scholars (e.g., Marchak, 1985; Clement and Drache, 1978). The approach began in the attempt to understand Canada's uniqueness in terms of being America's neighbour. This quirk of history has been the ongoing problematic for many Canadian scholars. The Canada-U.S. relation has, according to one observer, (Lipset, 1987) been the source of Canadian identity. He (1987: 81) comments:

Canadian identity is the product of a victorious counterrevolution, and in a sense must justify its raison d'être by emphasizing the virtues of being separate from the United States. Frank Underhill has pointed out that Canadians are the world's oldest and continuing anti-Americans. The Canadian sense of nationality has always felt itself threatened by the United States, physically in earlier days, and culturally and economically in more recent years.

Whether Lipset's observations are as true today as they may have been in the past, the Canadian political economy tradition had its roots in the attempt to come to terms with national underdevelopment (e.g. Teeple, 1972; Laxer, 1973). Since these early beginnings the approach has flourished and now encompasses a range of topics. These include: staples, dependency and elite studies; class, region and politics; accumulation and wage labour; the state; legitimation and the 'Crisis of Capitalism';

and confronting the crisis (Marchak, 1985). Obviously, such a wide range of topics is impossible to review here. As Marchak (1985: 675-676) in her excellent review notes:

In this review essay I will concentrate on the Canadian molecule. Even the literature spawned by Canadians about Canada in the space of a decade is prodigious, and it is impossible to note all contributors, even in all specialized areas.

In terms of analyses of the fisheries, the sub-area of political economy which is of interest is the class, region and politics debate in general, and the problem of independent commodity production in particular. In this area fishing and farming are two industries which are of particular interest. The concern arises because these industries have not followed the historical pattern of transformation which Marx envisaged.

Marchak (1985: 685-686) states:

Fishing poses similar problems to those in agriculture, and has generated parallel analyses... Fishermen may be conceptualized as 'labour under another name', or as independent producers constrained by markets and government regulations.

The debate on how best to conceptualize fishermen is represented by Clement, Guppy, Marchak, et al., and articles in the special issue on fishing in the Journal of Canadian Studies, (1984). This debate was examined in Chapter Three of this study. The position adopted in this study is closely aligned with that of Sinclair (1983), and what Guppy (1984) has labelled the integrationist approach. He (1986: 60) defines it thus:

In this "integrationist" approach, capital investment is thought to be discouraged in economic sectors where (1) supervision of labour is difficult; (2) uncertain harvests exist; (3)

capital is unproductive for extended periods; and (4) returns to capital occur over long intervals. These pressures create uneven contours to capitalist development, and the traditional petite bourgeoisie is alleged to have persisted.

The similarity between the "integrationist" approach and that adopted in this study is that it has been argued that the work organization in the harvesting sector of the Pacific coast commercial fisheries is associated with particular physical and technical constraints. These conditions are similar to points (1) and (2) in the integrationist position and include: lack of control over a mobile and common property resource, separation of work sphere from residence, isolation from the broader social context and exposure to risks and uncertainty. This study, unlike the integrationists, then examines the work organization in the fishery which is seen to be a consequence of these conditions. Conversely, the integrationists move to a discussion of capital (i.e., points (3) and (4) in the integrationist model). However, the two arguments could be integrated whereby the particular technical/physical constraints and work organizations are conceptualized as interlocking with the demands of capital. Such a project would require adequate knowledge of both the labour process as well as the political economic context.

As mentioned in Chapter Seven the research in the political economy tradition has been beneficial in outlining the political and economic constraints which structure the institutional arrangement in the industry. To date, what is glaringly absent from this tradition is a clear and detailed analysis of the

technical and physical conditions of the labour process of fishers. Interrelated with this omission is the absence of any discussion on the culture of these workers. In this, the political economists who have studied the British Columbia fishing industry fall clearly in the footsteps of Braverman (1974) before them. They have ignored the the rich and textured lived experience of fishers. In so doing they have rendered invisible the very actors they seek to explain. In an attempt to fill this gap, the following section will list some of the major hypotheses which were generated by this study.

Tentative Hypotheses

This section lists the hypothetical relations which were uncovered by this qualitative and descriptive exploration of the physical and technical conditions and work organization of Pacific coast Canadian commercial fishers and the occupational community and work culture of those fishers who reside in the Greater Vancouver area.

1. The significant physical conditions in fishing are a lack of control over a mobile marine resource which varies in species and migration patterns and is socially defined as 'common property'. These physical conditions result in an exploitative harvesting strategy which varies daily, weekly and monthly. This physically separates fishers from their home residence and other workers in their society. These physical conditions are also associated with a specific technological adaptation.

2. Work in this industry involves low levels of mechanization and hand-tool technology. The boats and gear are commonly owner-operated and range in length from 30 to 60 feet and have a crews of from 1 to 6 (i.e., predominantly male, members). These physical and technical

conditions are associated with a particular form of social organization of work.

3. The deckhands on commercial fishing vessels, to the extent they are returning crewmembers, are able to operate the boat and gear and actively participate in developing and implementing fishing strategy.

4. Economically successful fishers have stable crews and the authority of the skipper is downplayed and replaced by crew participation in decision-making.

5. Work groups both on board individual fishing boats and across the fleet in general are mutually interdependent and reciprocally coordinated. On individual boats, work groups demonstrate an absence of hierarchy, a de-emphasis on formal authority relations, consultation across status levels, a diffuse division of labour and an emphasis on egalitarianism.

6. The majority of fishers are recruited into the industry on the basis of particularist criteria such as informal relations, friendships or kinship. However, once recruited, a crew member's tenure is related to the ability to learn and execute a variety of interrelated tasks within a mutually interdependent work group.

7. Fishers during extended periods of absence from their home and families interact more with other fishers than with any other social group. Such fishers come to define themselves as belonging to a socially bounded community.

8. The longer the tenure of fishers the greater their occupational enculturation which is expressed through the acquisition and display of work related tools, apparel, jargon and joking behavior. This acquisition and display produces and reproduces the social boundaries of the occupationally based community of fishers in the Greater Vancouver area.

9. The greater the degree of occupational enculturation, the higher the degree of interaction with other fishers both on and off the job and the greater the number of family

members who are currently, or have previously been, fishers.

10. The higher the level of interaction among fishers the greater the fisher will identify with his occupation, will accept evaluations only from peers, will believe his occupation provides a socially valuable product, will be highly satisfied with what he perceives to be a manly and dangerous occupation and the less dissatisfied he will be with the uncertainties associated with fishing.

11. This occupational community membership takes precedence over other, potentially divisive, social characteristics such as ethnicity, age, sex and type of gear.

12. The members of the occupational community will be active in fishers' organizations' and have extensive fishing based social networks.

13. Membership in this community sets fishers apart in that they perceive themselves as distinct from other workers and members of the broader society.

14. This perception of difference results in the development and maintenance of an occupationally based subculture of commercial fishers in the Greater Vancouver area. This socially constructed and experienced community is true for those fishers who reside in the Greater Vancouver area and hold class 'A' salmon and roe herring licences and may not be true for holders of other licenses (i.e., those holding 'A-I' licences) or those who reside in other areas of British Columbia.

In sum, this study has described, through the use of the Craft-Professional model, the physical and technical constraints and work organization of Pacific coast commercial fishing and the work culture and occupational community of commercial fishers who reside in the Greater Vancouver area. It was observed that these men and women share a set of ideas, values, beliefs and behavior which stem from their productive activities which are socially learned and transmitted. Together these form the basis

for the occupational community and work culture of fishers. This socially constructed and culturally expressed community exists and has a utilitarian basis in social interaction. This community is not defined in territorial terms but in social interactive terms. Once we accept and understand the ethos of being a fisher, we have come a long way to understanding the persistence of the petite bourgeoisie in the fishery. For these workers, the industry provides more than a way of earning a living--it is a way of life!

APPENDIX A

Data Collection Procedures

The objective of this dissertation was two-fold. First it examined the relationship between physical and technical constraints on work organizations as discussed in the Craft-Professional Thesis, in the fisheries, and in the Canadian Pacific coast commercial fishery. Second it described how these organizations resulted in occupational communities and work cultures. Given that, at the time of investigation, there were no systematic studies of the structure, organization and culture of work among these fishers, this study assumed an ethnographic and qualitative approach. This type of research is exploratory. The style of reporting it is literary and humanistic.

Exploration is the process by which we gain an understanding of the subject of the research; "grounded theory" (Glaser & Strauss, 1967) is the product of exploration. In exploration the object is to discover and articulate hypotheses which enables further verification of these newly found propositions to proceed from an empirically valid and logically sound foundation. In exploration the construction of the very hypotheses is problematic.

Exploration, then is naturalistic investigation (Denzin 1978a, 1978b). Through inspection it seeks inductively to develop concepts and dimensions capable of being molded into hypotheses, and, hypotheses into theory. As Blumer (1969: 42-46) argues in the first clear statement of this approach in sociology,

inspection consists of examining the given analytical element by approaching it in a variety of different ways, viewing it from different angles, asking many different questions of it, and returning to its scrutiny from the standpoint of such questions.

Inspection is part of the "constant comparative method" (Glaser & Strauss, 1967: 105-115), which is begun by coding each incident of an event as soon as it is observed into as many categories of analysis as possible, as the categories emerge or as data emerge that fit an existing category. Later these categories and their properties are integrated and reduced to the smallest number; they are abstracted into concepts, which are then interlinked in various propositions about the subject of investigation.

In this type of methodology, sampling is "theoretical" to use Glaser and Strauss' terminology: in order to develop theory, the researcher decides what data he has already collected and analyzed. The amount of data gathered at any point is determined by "saturation"; no additional data are being found which can generate additional categories. At this point, the time has come to go on to a new group for data on other categories and attempt to saturate these categories.

In the present study the group sampled was those who are owner-operators of commercial fishing vessels who reside in the Greater Vancouver area and who fish the northeastern Pacific ocean.

Specifically, this research was conducted in four stages. The first, preliminary stage involved a review of the anthropological and sociological literature on fishing

communities. The second stage involved establishing contact with fishers and conducting interviews. The third stage was the fieldwork. This involved observation of the 1982 roe herring season for the west coast season (i.e., six weeks), and participant observation of the 1982 salmon season while employed as a deckhand on two vessels. One was a gillnetter for half season (i.e., eight weeks), the other was a freezer-troller for the latter half the season (i.e., for six weeks). The final stage brought on the difficulties of attempting to synthesize the wealth of data into a conceptual framework which would conform to the rigors of academic discourse. This final stage was possibly the most problematic because of the difficulties which are unavoidable when one attempts to transpose the everyday lived experience into an abstract and logical framework - no matter how grounded the theory attempts to be. The framework which was ultimately developed owes much to prior research conducted in the social anthropology of craft culture and the new labour history.

The following will examine the second stage of the research. Appendix B lists the open ended questions which helped to structure the interviews. Appendix C describes the author's personal and intellectual background. Appendix D provides a general description of the fishers who contributed to this study and the code numbers which each interview was assigned.

The interviews of fishers on which a large part of this research is based was supported by funding from the Institute of Fisheries Analysis, Simon Fraser University. This stage of the research was conducted with the assistance of Dr. P. Copes and

Dr. I. Whitaker. Contact with fishers was established with the assistance of the Department of Fisheries and Oceans (DFO), Vancouver. This department granted us permission to send a request to fishers to participate in our study under their regular mailing list.

A request to participate in a research project was mailed to the 2,361 commercial fishing vessel licence holders who reside in the greater Vancouver area of British Columbia on the 15 May 1981. A second mailing was initiated on 2 September 1981.

A large number of the addresses in the data base are not the home addresses of fishing vessel owner/operators. Many licences are held by companies. In the 1983 data it was found that in the greater Vancouver area BC Packers held 194 licences, Cassiar Packing held 114, Trans Pacific 26, Canfisco 63, MacMillan 7, Ocean Fisheries 34, Prosperity Marine 11, and a combination of several others (i.e., 98) held a minimum of five or more licences¹. Further to these complications, in the 1983 data, approximately 1,000 of the total addresses are listed without the age of the resident indicating either nonfishing status or company ownership. Further, many mailing addresses are duplicated as some individuals own more than one licence. Therefore, it is estimated that possibly 1,500 of the addresses on the 1982 mailing list are either duplicated or belong to companies. Further in the 1981 data 387 licence holders listed BC Packers as their mailing address.

¹ These are estimated figures. The DFO computer files did not list company ownership as a coded category. Therefore the number of companies had to be counted manually from a printout of all vessel owners. This may involve some counting error.

A total of 153 individuals indicated willingness to participate which is approximately 18% of the total. Due to practical limitations of time and money, the full 153 respondents were not interviewed. Instead, I interviewed 81. Focused and open ended interviewed took place between April 1981 and 1982 either on board the fishing vessel or at the fisher's home, and lasted from one and a half to three hours. Further insights were gleaned from two trips to the field for the duration of the 1982 herring and salmon seasons. During these field trips ten, one and a half hour, sessions among fishers on the fishing grounds were taped.

One of the major factors limiting the response rate was undoubtedly our initial association with DFO. Fisher's attitudes towards DFO are at best cool, if not outwardly critical. Second, the government agency has a tendency to barrage fishers with requests for information which many find wearisome and irksome. However, in spite of the difficulties of making contact, I am confident that the interviews conducted covered a representative range of persons, and were carried out in sufficient depth to provide accurate generalizations on the salmon and roe herring fishers of the Canadian Pacific coast.

The following comparison with some of the available Department of Fisheries and Oceans data (1978, 1980) and results of a study by Lattey and Burns (1984), on the age of B.C. commercial fishers, type of gear, and size of boat, indicates that the data I collected during the interview stage exhibit characteristics which are similar to the characteristics found in

the province's commercial fishing population. The group I interviewed is comparable with regard to the general population of fisher on the following characteristics: age, type of fishing gear, and size of boat. The variations which occur may be related to the over-representation in this study of seine skippers. This over-representation is consistent with the findings reported by Warriner (1987). He argues that the recent trend has been towards greater concentration of fishers and processors in the urban/core regions. Given the latter-day adoption of seiners in the fleet, it would follow that they would be more concentrated in urban areas. The comparisons are provided in the following tables.

Table 5

Frequency Distribution of Age of Fishers

Age	Sample	D.F.O.*
-30	4.93%	6.23%
30-39	20.98	21.47
40-49	20.98	22.47
50-59	30.86	25.94
60-69	16.04	17.62
+69	6.17	6.23
	(N=81)	(N=1299)

*D.F.O. data from Lattey and Burns, 1984.

Interpretation

The informants in this research range in age from 26 to 73 years of age. The average age is 49 years old. In comparison the total population of fishermen in the province, in our group: 1.30% fewer persons are under 30 years of age, 1.49% fewer persons between 30 to 39 years, 2.49% fewer persons between 40 and 49 years, 6.9% more persons between 50 and 59 years, 1.58% fewer persons between 60 and 69 years, and .6% fewer persons over 69 years. In general, with regard to the distribution of age, the study group is similar to the total population of fishermen.

Table 6

Frequency Distribution of Type of Fishing Gear

Type	Sample	(DFO)*	(DFO)**	
Seines	21.32%		6.71%	8.1
Gillnet	25.32	22.63	43.2	
Trollers	21.32	31.72	36.8	
Combination	21.32	58.3	11.2	
Other***	10.64	0.0	0.8	
	(N=75)****			

* DFO data, reported in Pearse, 1982.

** DFO data, reported in Warriner, 1986.

*** Others include: Trawl, Halibut, Black Cod, Rock Cod, Prawns, Mouching, and Packing.

**** Missing cases: 6.

Interpretation

The sample data is over represented by seiners and under-represented by trollers. The data for gillnet, combination and others is unclear. There are a number of reasons why this may be the case. First, in the DFO data, as reported in Pearse and Warriner, there is ambiguity in the definition of combination. This may be the result of imprecise DFO information on the frequency of multiple gear use in the salmon fishery. This lack is no doubt related to the reticence of fishers to accurately report multiple gear use. The three definitions are as follows. Pearse defines combination as any salmon fishing vessel which uses more than one gear and/or participates in any other fishery. Warriner defines combination as salmon fishing vessels which use both gillnet and troll gear. In the sample, combination is defined by those salmon fishers who reported being combination. This involves using more than one gear in salmon fishing. The strength of this definition is that it is created by the participants rather than external observers. The discrepancies

in the other category may be accounted for in part, by the fact that the DFO data refers to only salmon fishers while the sample includes some in other fisheries. Overall, in the study, it was necessary to over sample the smaller categories in order to have sufficient enough numbers to allow interpretation within the group.

Table 7

Frequency Distribution of Size of Boat

Size in feet	Sample	(DFO) * 1980
-29	8.68%	25.512%
30-34	18.84	25.66
35-39	25.09	23.86
40-49	18.85	11.55
50-59	10.15	4.83
60-69	11.78	2.55
+69	5.78	2.89
	(N=69)**	(N=7,551)

* Source of DFO (1980) data: Canadian Fisheries: Annual Statistical Review, Vol.: 13: 1980.

** Missing cases: 12.

Interpretation

In comparison to DFO statistics our group is under-represented in the under 29 foot category and over represented in the over 50 foot category. The middle ranges (i.e., 30 to 49 ft.) are similar. These differences may be accounted for by the larger number of seiners, and the fewer numbers of gillnetters and trollers in our group.

APPENDIX B

The Interview Schedule

The following is an outline of the questions which were asked during the interviews. The questions were not always asked in the sequence provided, and informants were encouraged to introduce additional information as they felt appropriate. The questions merely served to focus the discussion on their lives in the fishing industry. In some cases certain questions were not asked because of either time limitations or a feeling that specific questions were irrelevant or too sensitive.

The interviews were taped and each interview was fully transcribed by the author-researcher. In the majority of cases the interviews lasted two and one half hours. Occasionally an interview took up to four hours or was limited to one and one half hour. The informants were very hospitable and consistently offered coffee and cookies. In some cases sandwiches, beers and dinner were shared. As a generalization, most fishers are favourably disposed to discussing their work history and the industry.

To introduce myself and the project I stated a modified or elaborated version of the following.

I am a student of sociology at Simon Fraser University and am studying the B.C. fishing industry as the topic of my thesis. I am interested in the people who earn their living in the industry. In particular, I would like to know how and when persons first came to be involved in the industry, and what they

currently perceive to be the major difficulties and attractions of fishing as a way of life.

I have a series of questions I would like to ask, and, would also like to tape our discussion. Please do not feel obligated to answer any questions you find difficult or uncomfortable. Also, if the tape recorder is disconcerting I will not use it. At any time during the interview it can be turned off.

No person other than myself and my Supervisor has access to these tapes. Your privacy will be strictly protected and you will not be personally identified in the written version of the research report. You may have a copy of the report by calling the Department of Sociology and Anthropology. Please request to speak with either myself or my Supervisor, Dr. Ian Whitaker.

Do you have any questions?

I would like to ask some general questions on your participation on the fishing industry. Please feel free to elaborate on any questions you think are particularly relevant or introduce related topics.

To begin, I would like some demographic information.

1. Please list all persons living here with you.
 - a. marital status
 - b. age
 - c. number of dependent children living at home

2. How many years of formal education do you have?

Now, I would like to ask some questions on the type of fishing that you do.

3. What is the size of your fishing boat?

- a. How many years have you owned it?
- b. Is this the first boat you have owned?
- c. When did you purchase your first boat?
- d. When did you first start fishing?
- e. What type of gear do you most commonly use?
- f. What areas do you usually fish during the season?
- g. About how long are you away at the fishing grounds?

I would like to know something about the recruitment of fishing crews.

4. How many crew do you have during the fishing season?

- a. How were your crew recruited?
- b. How long has your crew been together?
- c. How do you pay your crew? Shares? Per Trip?
- d. What do you see as the criterion of a good crew?
 - i) family?
 - ii) friends?

Could you tell me something about living conditions while fishing?

5. What do you think is the major reason for stress when fishing?

- a. Personal conflicts?
- b. Deprivation from friends and family?
- c. Bad weather, or poor fishing conditions?

6. When you are fishing do you have contact with other fishermen?

- a. About how often?
- b. Is it regular?
- c. Do you fish with a group of other fishermen?

I am also interested in changes in boats and gear over the last few years.

7. What kind of improvements to gear have you witnessed over the last 19 or so years?

- a. What have been the effect on your fishing pattern?

8. How about changes in catch levels over the last 10 years?

- a. Are catches increasing or decreasing?

9. Have you changed your fishing pattern over the last 10 years?

- a. Are you fishing less?
- b. Have you changed the area you fish in?

I am interested in how fishermen are getting along financially these days.

10. Would you say you (and your family) are better or worse off than you were one year ago?

- a. Five years ago?
- b. why?

11. Are you receiving as much income now as you were a year ago?

- a. Five years ago?
- b. why?
- c. what about in the future?
- d. why?

I am interested in why you took up fishing as an occupation.

12. About how long ago did you do fishing?

- a. Were you introduced to fishing by a family member, a relative, or a friend?
- b. Do you remember how you felt about going fishing then?
- c. Why did you decide to stay in the industry?

I would like to know what you think about fishing as a way of life.

13. Have you ever had any other occupations besides fishing?

- a. What kind of work was that?
- b. When was that?
- c. How long ago was that?
- d. Have you ever done any other jobs besides that?
- e. Do you prefer fishing to other occupations?
- f. Why is that?
- g. Do you think fishing is a business or a way of life, or both?

I am interested in how you financed your first boat.

14. How did you acquire the capital to purchase your boat?
 - a. Was it through fishing, a gift, family, or another occupation?
15. How do you spend your time in the off-season?
 - a. Do you get a job, repair your boat and gear, attend meetings?

I am interested in your feelings about government regulation of the industry.

16. Are you, or have you been, effected by government regulations on fishing?
 - a. How were you affected by government regulations?
 - b. Why were you affected?
 - c. In general, how do you feel about government regulations?
 - d. Do you see any alternatives?
 - e. Why do you think the regulations were enacted?
 - f. Do you think they are valid?
 - g. Are they effective?
17. Have you received any other income this last year from sources other than fishing?
 - a. Win a lottery, collect unemployment insurance, or help from relatives?
 - b. Do you have any investments? Are they a substantial source of income?

18. Have other family members been involved in fishing?
- What relationship to you?
 - Are they still active?
 - Have you ever belonged to the same crew as another family member?
19. Is your wife involved in fishing?
- Does she do any book-keeping, correspondence, or work on the boat? Has she ever?
 - Does she work part-time?

I am interested in the effect fishing has as an occupation on family life.

20. How often during the fishing season do you see your family?
- Did you chose your place of residence to be closer to your family?
 - How long have you lived in this neighbourhood?
 - Do you think that fishing as a way of life creates specific types of family relations?
 - Do you think fishermen's wives are different from other wives?

I would like to know if fishermen share a sense of community, or socialize often with other fishermen.

21. When on shore do you visit with other fishermen in their homes or elsewhere?
- a. Are they most often relatives?
 - b. How often do you visit with other fishermen on shore?
 - c. How regular do you visit?
 - d. Where do you most often meet?
 - e. Have you ever had any informal friendships with other fishermen?
 - f. Was that person a relative?
 - g. Do you socialize informally with your crew?
 - h. More often in the past than now?

I am interested in membership in fishing organizations.

22. Are you at the present time affiliated with any fishermen's organizations?
- a. Are you actively associated?
 - b. Do you attend formal meetings?
 - c. Do you make any financial contributions?
 - d. Any previous affiliations?
 - e. How do you feel about fishermen's organizations.
23. Would you say your lifestyle is similar or typical to other fishermen?
- a. How do you view people who are not fishermen?

I would like to know something about your family background.

24. What was the ethnic identify of your first ancestor to come to North America?
- a. On your father's side?
 - b. On your mother's side?
 - c. What about your wife's family?
25. Are you at the present time affiliated with any ethnic or cultural organizations?
- a. How active are you?
 - b. Do you attend meetings or informal gatherings?
 - c. Any financial contributions?
 - d. Have you any previous affiliations?

Well, I've come to the end of my questions. Is there anything I have missed that you would like to tell me about?

26. If you could do it over again, would you be a fisherman?
- a. Would you encourage your son to be a fisherman?
 - b. Would you like your daughter to marry a fisherman?

Thank you very much for your time. If you are interested in a copy of the report please contact myself or my supervison, Dr. Ian Whitaker, at the Department of Sociology and Anthropology at Simon Fraser University. Also, if you have any questions or further information you would like to share please call me. Thank you again.

APPENDIX C

Establishing Rapport With Fishers

In sociological studies based on the interpretation of cultures (e.g., deviants), it is considered important to know something of the investigator's social background. For example, Tunstall's (1969) study of fishermen provides some interesting and relevant personal information. Following in line with this tradition, I will also provide some background information on my personal life history.

The following portrait is intended to depict those aspects of my life history which facilitated my research into the work milieu of Pacific coast commercial fishers and my ongoing interest in the study of culture and society. My outlook includes: empathy for the plight of small business persons (particularly those for whose work requires absence from home), a love of the natural environment and physical activity, fascination with culture, and dedication to scholarship. The discussion in the remainder of this Appendix will lend credence to these claims.

I was born in 1952 in Medicine Hat, Alberta. My parents, Gerry and Audrie Burns were born on the Canadian prairies in Saskatoon and Calgary respectively. During the war years, they met while my father was in the service of the Royal Canadian Air Force and my mother was President of the Adanac Ria club in Vancouver, B.C.¹ They were married in Vancouver in 1946. In the early years of their marriage, my parents returned to Alberta and

¹ This was a social club which was established to entertain Canadian service men while they were on leave in Canada. The name of the club spells Air Canada in reverse.

my father joined the Great Western Garment Company as a salesman. We established a home base in Calgary while my father's employment often took him away to various rural Alberta communities. With my father often absent during my childhood, I can empathize with similar situations among fishing families. Further, given my father's self-definition as an entrepreneur, I am sensitized to the plight of small business persons.

Part of my childhood years were spent in a small rural community on the outskirts of the city of Calgary. During these years I learned to ride horseback and greatly enjoyed access to the outdoors. I continued my interest in horses throughout adolescence and was awarded three Junior Jumper Western Canadian Championships. I gave up riding in 1970. It was these experiences which inspired my love of the outdoors and developed my athletic abilities.

At about the same time I followed my older sister to San Miguel Allende, G.T.O., Mexico to attend art school. In September, 1972 I travelled to London, England. Between that time and the end of 1973 I travelled in Europe, the Middle East, through to Afghanistan and on to northern India. In 1974 I visited Australia and took up residence in Auckland, New Zealand. It was these experiences which alerted my attention to and ongoing fascination with culture and society.

I returned to Canada in 1975 and began my formal studies in Anthropology and Sociology. I received my Bachelor of Arts degree with a major in Sociology and a minor in Anthropology, from the University of Alberta in 1979. The same year I began

reading for the degree of Master of Arts at the University of Victoria, B.C., in Political Sociology under the tutelage of Dr. R. Ogmundson. The thesis is an investigation into the relationship between subjective class identification, trade union membership and support for the New Democratic Party. In September 1980 I began my doctoral studies at Simon Fraser University.

On arrival at Simon Fraser and under the supervision of Dr. I. Whitaker, I began my research into the culture and technical and social relations of work in the commercial fisheries. The first year was spent attending classes, conducting preliminary interviews and reading economic, anthropological and sociological literature.

Sociologically my most important influence is probably Max Weber's Essays on the Methodology of the Social Sciences and Karl Marx's notion of the contradiction between theory and praxis. My theoretical bias in sociology is to prefer Canadian Political Economy and British Social Theory. Methodologically, while trained in both quantitative and qualitative methods, my preference is ethnography. The Birmingham School of Cultural Studies represents the integration of critical theory empirical observation and interpretative analysis which is compatible with this dissertation (e.g. Paul Willis, 1977).

In regard to establishing contact with fishers in the Greater Vancouver area, I must underline that many feel the industry has been studied to death by "outsiders" without any obvious positive results. This distrust is further exacerbated

by the nature of the occupation whereby fishermen come to regard their knowledge as unique and privileged. In short, the fishery is perceived by fishermen as something which must be learned over a long apprenticeship.

The majority of interviews for this study were conducted between April 1981 and March 1982. The fieldwork is comprised of two trips to the fishing grounds for the herring season in March of 1982 and the salmon season in that same summer.

The material collected falls into four main groups.

Participant Observation - Four weeks on the west coast of Vancouver Island for the herring fishery; ten weeks ranging up the coast to the Queen Charlotte Islands for the salmon fishery.

Interviews - In homes with men and/or their wives; at the fishermen's wharves with groups and individual fishermen. The contact with fishermen for these interviews were made under an introductory letter sent by the Department of Fisheries and Oceans which requested participation in the study.

Documentary - Evidence referred to in the text and footnotes collected from newspaper articles published during the period of the study.

Demographic Data - Collected while under contract to investigate fishing communities in British Columbia with C. Lattey, DPA Consultants for the Department of Fisheries and Oceans.

In regard to establishing rapport, the interviews were rarely uncomfortable. Occasionally I was regarded suspiciously. However, I feel my own lack of pretense, ability to empathize

and desire to learn enabled many fishers to feel at ease in describing their work histories. My interviewing experiences were highly rewarding. Often I found myself lingering on over coffee, a beer, and snacks long after completing the interview schedule.

I also believe my time on the fishing grounds, while not long in calendar time, was sufficient to test my own assumptions and preconceptions as to the real content of working and living at the fishing grounds on the Pacific coast. This was an excellent opportunity to observe the distinction between action and words, and how I ultimately interpreted what they do and how they do it.

Finally, only at the fishing grounds was it possible to get a glimpse and understanding of the things that people find difficult to talk about. Examples of such things are the violations of fisheries regulations, fear, social isolation and sexual constraint².

These observations, not easily acquired and often neglected, this dissertation addresses. The combination of my personal attributes and formal training provides one key to understanding the unique experience of Pacific coast commercial fishers who reside in the Greater Vancouver area.

² Elsewhere I have discussed the methodological and theoretical problems associated with being a female researcher in a male community (Burns, 1987).

APPENDIX D

Informant Codes

The persons interviewed for this study are described here with regard to their age, marital status, type of fishing gear, size of fishing vessel, the time period they reported as when they first went fishing, and the year they purchased their first boat. Many of the dates are very early, in these cases the individual reported first going fishing in their childhood with a parent. As will be seen, many of the informants have been involved in the industry for quite some time.

The following descriptions of the personal characteristics of the fishers are provided to establish the validity of the illustrative quotations found in the text of this dissertation. The credibility of an individual's opinion and observation on the industry is tied to their work history. For example, it is the case that a gillnet skipper who has been in the industry for thirty years is more qualified to discuss the history of gillnetting than a purse seine skipper of five years.

The codes are arbitrarily assigned but follow consecutively from F1 (i.e. fisher number one) to F81 (i.e. fisher number eighty-one). To protect the identity of individuals limited information is provided.

F1:

male, married, 67 years of age, gillnet, size of boat 30', first time fishing 1929, year purchased first boat 1949.

F2:

male, married, 40 years of age, gillnet, size of boat 26', first time fishing in 1949, year purchased first boat 1959.

F3:

male, married, years of age 67, gillnet, size of boat 37', first time fishing in 1962, year purchased first boat 1962.

F4:

male, married, years of age 62, gillnet, size of boat 28', first time fishing in 1955, year purchased first boat 1960.

F5:

male, married, years of age 36, gillnet, size of boat 25', first time fishing in 1975, year purchased first boat 1975.

F6:

male, single, years of age 26, combination, size of boat 36', first time fishing in 1968, year purchased first boat 1960.

F7:

male, separated, years of age 32, combination, size of boat 36', first time fishing in 1961, year purchased first boat 1962.

F8:

male, married, years of age 26, seine, size of boat 66', first time fishing in 1961, year purchased first boat 1976. This fisherman first went fishing with his grandfather when he was five years of age. At this time, his father was working as crew on the grandfather's boat. He began fishing on his father's boat from the age of eight or nine up until he was twenty. At this time he bought his own boat, which he is currently operating.

F9:

male, married, years of age 55, troll, size of boat 35', first time fishing in 1948, year purchased first boat 1962.

F10:

male, married, years of age 72, combination, size of boat 37', first time fishing in 1963, year purchased first boat 1971.

F11:

male, married, years of age 35, seine, size of boat 80', first time fishing in 1955, year purchased first boat 1958.

F12:

male, married, years of age 50, seine, size of boat 60', first time fishing in n.a., year purchased first boat n.a.¹

F13:

male, widower, years of age 59, troll, size of boat n.a., first time fishing in 1948, year purchased first boat n.a..

F14:

male, divorced, years of age 52, gillnet, size of boat 34', first time fishing in 1946, year purchased first boat 1968.

F15:

male, married, years of age 44, seine, size of boat 80', first time fishing in 1948, year purchased first boat 1959.

F16:

male, married, years of age 44, seine, size of boat 65', first time fishing in 1948, year purchased first boat 1957.

F17:

male, married, years of age 71, hook and line and crab, size of boat 26', first time fishing in n.a., year purchased first boat n.a.

¹ The abbreviation (n.a.) indicates that information on this item is not available.

F18:

male, single, approximately 65 years of age, troll, size of boat 47', first time fishing in 1937, year purchased first boat 1964.

F19:

male, divorced, years of age 32, gillnet, size of boat 35', first time fishing in 1964, year purchased first boat n.a.

F20:

male, married, years of age 53, gillnet, size of boat 35', first time fishing n.a., year purchased first boat 1960

F21:

male, single, years of age 42, troll, size of boat 50', first time fishing in 1958, year purchased first boat n.a..

F22:

male, married, years of age 76, gillnet, size of boat 18', first time fishing in 1930, year purchased first boat n.a..

F23:

male, married, years of age 61, gillnet, size of boat 18', first time fishing in 1958, year purchased first boat 1958.

F24:

male, married, years of age 60, troll, size of boat 40', first time fishing in 1975, year purchased first boat 1975.

F25:

male, married, years of age 65+, hook and line, size of boat 16', first time fishing in 1934, year purchased first boat 1950.

F26:

male, married, years of age 42, troll, size of boat 40', first time fishing in 1971, year purchased first boat 1978.

F27:

male, married, years of age 55, troll, size of boat 22', first time fishing in 1943, year purchased first boat 1943.

F28:

male, married, years of age 68, cod traps, size of boat 65', first time fishing in 1937, year purchased first boat 1948.

F29:

male, married, years of age 43, gillnet, size of boat 38', first time fishing in 1954, year purchased first boat 1963.

F30:

male, married, years of age 51, seine, size of boat 50', first time fishing in 1960, year purchased first boat 1977.

F31:

male, married, years of age 65, gillnet, size of boat 31', first time fishing in 1939, year purchased first boat 1948.

F32:

male, married, years of age 51, trawl, size of boat 105', first time fishing in 1948, year purchased first boat 1960.

F33:

male, married, years of age 58, gillnet, size of boat 34', first time fishing in 1930s, year purchased first boat 1936.

F34:

male, married, years of age 68, gillnet, size of boat 30', first time fishing in 1928, year purchased first boat 1956.

F35:

male, married, approximately 60 years of age, seine, size of boat 60', first time fishing in 1941, year purchased first boat 1955.

F36:

male, married, years of age 50, gillnet, size of boat 36', first time fishing in 1952, year purchased first boat 1952. In this interview the wife gave most of the information on her husband's work history. She works as a wharfager in the Lower Mainland area and fishes part-time.

F37:

male, married, years of age 47, crab traps, size of boat 34', first time fishing in 1977, year purchased first boat 1977.

F38:

male, married, years of age 52, combination, size of boat 42', first time fishing in 1949, year purchased first boat 1950. This informant was of Japanese descent and therefore it must be kept in mind that his working life was interrupted by the evacuation of the Japanese to internment camps during World War Two.

F39:

male, married, years of age 71, gillnet, size of boat 36', first time fishing in 1936, year purchased first boat 1950.

F40:

male, married, years of age 46, hook and line, size of boat 39', first time fishing in 1978, year purchased first boat 1978.

F41:

male, single, years of age 31, prawn traps, size of boat n.a., first time fishing in 1973, year purchased first boat 1974.

F42:

male, married, years of age 64, troll, size of boat 40', first time fishing n.a., year purchased first boat 1946.

F43:

male, single, years of age 30, halibut longline, size of boat n.a., years first time fishing n.a., year purchased first boat n.a..

F44:

male, married, years of age 54, gillnet, size of boat 40', first time fishing in 1957, year purchased first boat approximately 1960.

F45:

male, married, years of age 65, seine, size of boat 56', first time fishing in approximately 1945, year purchased first boat 1947.

F46:

male, married, years of age 65, gillnet, size of boat 36', first time fishing in 1936, year purchased first boat 1937.

F47:

male, married, years of age 43, troller, size of boat 39', first time fishing in 1971, year purchased first boat n.a..

F48:

male, married, years of age 31, troller, size of boat 47', first time fishing in 1965, year purchased first boat 1972.

F49:

male, divorced, years of age 37, gillnet, size of boat 32', first time fishing in 1971, year purchased first boat 1971.

F50:

male, married, years of age 31, seine, size of boat 50', first time fishing in 1963, year purchased first boat 1974.

F51:

male, divorced, years of age 46, troller, size of boat 41', first time fishing in 1957, year purchased first boat 1964.

F52:

male, married, years of age 36, gillnet, size of boat 34', first time fishing in 1970, year purchased first boat 1970.

F53:
female, single, years of age 34, gillnet, size of boat 34', first time fishing in 1973, year purchased first boat 1975.

F54:
male, separated, years of age 29, gillnet, size of boat 38', first time fishing in 1969, year purchased first boat 1970.

F55:
male, married, years of age 34, seine, size of boat 52', first time fishing in 1961, year purchased first boat 1976.

F56:
male, married, years of age 64, seine, size of boat 52', first time fishing in 1932, year purchased first boat 1947.

F57:
male, married, years of age 29, seine, size of boat 54', first time fishing in 1965, year purchased first boat 1972.

F58:
male, married, years of age 54, troll, size of boat 40', first time fishing in 1949, year purchased first boat 1952.

F59:

male, married, years of age 57, troll, size of boat 38', first time fishing in 1937, year purchased first boat 1962.

F60:

male, married, years of age 54, gillnet, size of boat n.a., first time fishing in 1937, year purchased first boat 1948.

F61:

male, common-law, years of age 41, trawl and seine, size of boat 55', first time fishing in 1957, year purchased first boat 1968.

F62:

male, married, years of age 55, seine, size of boat 72', first time fishing in 1951, year purchased first boat n.a..

F63:

male, common-law, years of age 41, gillnet, size of boat 28', first time fishing in 1955, year purchased first boat 1975.

F64:

male, divorced, years of age 38, troll, size of boat 42', first time fishing in 1974, year purchased first boat 1974.

F65:

male, married, years of age 50, troll, size of boat 42', first time fishing in 1958, year purchased first boat 1971.

F66:

male, separated, years of age 53, seine, size of boat 60', first time fishing in 1948, year purchased first boat 1960.

F67:

male, divorced, years of age 31, gillnet, size of boat 39', first time fishing in 1966, year purchased first boat 1978.

F68:

male, divorced, years of age 31, gillnet, size of boat 33', first time fishing in 1965, year purchased first boat 1976.

F69:

male, marital status n.a., years of age 55, size of boat 40', first time fishing in 1977, year purchased first boat 1977.

F70:

male, married, years of age 48, troll, size of boat 34', first time fishing in 1979, year purchased first boat 1979.

F71:

male, married, years of age 39, halibut longlining, size of boat 46', first time fishing in the early 1950s, year purchased first boat 1964.

F72:

male, divorced, years of age 33, troll, size of boat 38', first time fishing in 1964, year purchased first boat 1970.

F73:

male, married, years of age 48, seine, size of boat 67', first time fishing in 1962, year purchased first boat 1967.

F74:

male, married, years of age 49, gillnet, size of boat 30', first time fishing in approximately 1948, year purchased first boat 1948.

F75:

male, married, years of age 57, combination, size of boat n.a., first time fishing in 1938, year purchased first boat 1948.

F76:

male, divorced, years of age 54, troll, size of boat 50', first time fishing in approximately 1948, year purchased first boat 1952.

F77:

male, married, years of age 53, troll, size of boat 64', first time fishing n.a., year purchased first boat n.a..

F78:

male, divorced, years of age 55, troll, size of boat 63', first time fishing in approximately 1945, year purchased first boat n.a..

F79:

female, married, years of age 55, combination, size of boat 32', first time fishing in 1938, year purchased first boat 1942. She is the wife of F60. She has fished with her husband and alone. At the time of this study she was employed by the Harbour Board.

F80:

male, single, years of age 43, troll, size of boat n.a., first time fishing in 1962, year purchased first boat n.a..

F81:

female, married, years of age 50, married to a fisherman. They have been married for 27 years. She is the wife and deckhand of F73.

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